

# Japan and Ballistic Missile Defense

RAND

Michael D. Swaine  
Rachel M. Swanger  
Takashi Kawakami

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Michael D. Swaine

Rachel M. Swanger

Takashi Kawakami

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## **PREFACE**

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This study seeks to identify and examine the many factors influencing Japan's approach to the issue of ballistic missile defense (BMD), including the perceptions, motives, and interests of key Japanese players; the role of the United States; the Japanese decisionmaking process regarding BMD issues; and the dynamics of critical considerations such as alliance maintenance, cost, feasibility, commercial and legal factors, political or bureaucratic competition, and the behavior of the People's Republic of China. The purpose of this examination is to assess the pros and cons of various options available to Japan, to identify the most likely courses of Japan's future BMD development, and to discern the possible implications of such development for the U.S.-Japan alliance and Asian stability.

This report should be of interest to scholars, journalists, students, and other members of the public who seek a better understanding of the Japanese political process concerning ballistic missile defense and its impact on the likelihood for continued cooperation in the development of a theater missile defense system in Northeast Asia. The authors hope it will be of particular use to policymakers on both sides of the Pacific as they work toward building a more durable U.S.-Japan security partnership that continues to contribute to peace and stability in the region.

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The study's third author, Takashi Kawakami, currently a member of the Japanese National Institute for Defense Studies and former aide to Diet member Toshiki Kaifu, was a major contributor to Chapter Three. However, he was neither involved with nor responsible for the reporting on the Japanese Defense Force and the Japanese Defense Agency found in that chapter.

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## **SUMMARY**

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Spurred by a perceived growing ballistic missile threat from within the Asia-Pacific region and requests from the United States to support research and development on components of a missile defense system, the Japanese government decided in late 1998 and early 1999 to move forward with joint research and development with the United States on ballistic missile defense (BMD). But the decisions taken thus far commit Japan only to limited participation with the U.S. government on collaborative research and prototype production of theater missile defense (TMD) components. To date, Japan has undertaken no effort to develop or acquire a dedicated BMD system, nor has it assessed the larger political and strategic implications of a Japanese BMD system in any thorough or systematic manner. More important, no consensus has yet emerged in favor of the development or deployment of a full-fledged BMD system in Japan. Finally, Japan and the United States have not clarified: (1) how essential it is for Japan to participate in a more extensive program of joint research and development; (2) the extent of system interoperability that is desirable and achievable; or (3) the impact of a decision to deploy on the strategic environment in Asia.

## **MOTIVATIONS AND RESPONSES**

Although Japan's decision to move forward was precipitated by the 1998 launch of a North Korean rocket believed to be a Taepodong-1, the more likely threat to Japan arises from the shorter-range Nodong missile. North Korea currently possesses about 100 Nodong-1 missiles capable of delivering conventional and nonconventional (i.e.,

weapons of mass destruction, or WMD) warheads to most of Japan. Concern about North Korea's potential use of these missiles to threaten or attack Japan in the context of a conflict on the Korean peninsula or a confrontation between the United States and North Korea is one of the major motivating factors behind Japan's movement toward participation in a U.S.-led BMD system. According to military analysts, this threat, although somewhat diminished by the recent warming trends on the Korean peninsula, has not been eliminated.

The friendly nature of governmental relations between China and Japan precludes official characterizations of China as a direct military threat. Nonetheless, many Japanese strategists and military officers and some politicians are concerned about a possible Chinese missile threat given that the number, types, and ranges of China's ballistic missile force are far greater than those of North Korea. China currently has two types of medium-range and one type of intermediate-range missiles capable of reaching Japan and of carrying both conventional and WMD warheads. Although the likelihood is admittedly not terribly high, strategists are concerned that China might resort to using these missiles to threaten or attack U.S. forces in Japan or even Japanese territory and citizens in two conceivable contexts: (1) as part of an escalating crisis over Taiwan or (2) over the long term, in support of efforts by a much stronger and more confident China to achieve specific territorial, political, or strategic objectives in the Asia Pacific such as control of the disputed Senkaku Islands claimed by both Beijing and Tokyo.

Thus, North Korean and Chinese missiles form the primary potential threats that Tokyo decisionmakers must take into consideration to justify investing taxpayer funds to support the development of a ballistic missile defense system. But an equally compelling incentive for policymakers is that the United States, Japan's only alliance partner, is a strong advocate of Japan's participation in the development of such a system. The United States has been discussing joint participation in development of BMD since the inception of President Reagan's Strategic Defense Initiative (SDI) in 1983. Although the system under consideration has evolved over the years, the factors motivating U.S. requests for Japanese participation have remained fairly constant. The United States wants Japan to contribute technological expertise and funding, and to serve as a customer for what will

undoubtedly be a complex and expensive system. Joint development of the system has also been perceived on both sides as a way to maintain and even strengthen both the alliance and Japanese security.

In addition to diplomatic and other nonmilitary measures that this study does not explicitly deal with, Japan has a number of military-related options to counter the perceived ballistic missile threat—either independently or in cooperation with the United States. These countermeasures fall into three broad categories: offensive measures, passive defense measures, and active defense measures. Japan has excluded the possibility of acquiring offensive capabilities. Passive defense measures, such as civil defense and hardening of military targets, would be effective in reducing casualties in the event of a missile attack but would not have the psychological effect provided by active defensive measures such as ballistic missile defense.

Thus, any effort by Japan to develop military countermeasures to ballistic missiles would likely include some type of active layered defense, including aspects of civil defense and hardening in addition to some combination of BMD components. Japan could deploy four general types of BMD systems. The most likely are Land-Based Lower Tier (LT), Sea-Based Lower Tier, Land-Based Upper Tier (UT), and Sea-Based Upper Tier Phases I and II. At present, Japan is officially committed only to an initial phase of study and joint research on UT-related components, and to the limited acquisition of LT-related systems. Even though the prime minister's office and the foreign ministry have reportedly at times privately expressed their support of moving forward on BMD, no thorough discussion has been undertaken or agreements reached—either publicly or privately—on whether and how to proceed with BMD development, procurement, and deployment.

Decisions or actions in these three areas will likely require a greater level of political consensus among many actors on a wide range of controversial issues. These issues include the effect of BMD decisions on the U.S.-Japan alliance, financial and legal constraints, the technical and military feasibility of the BMD concept, internal military and bureaucratic rivalries, and the reactions of China and other countries in the Asia-Pacific region.

## DOMESTIC FACTORS DETERMINING FUTURE DECISIONS

The pace, tempo, and level of support for BMD have been heavily influenced by the Japanese government's bureaucratic and budgetary processes, U.S. pressure, and actions taken by North Korea. The Japanese government is apparently attempting to limit the number of actors involved in BMD decisionmaking. To date, the policy process has remained largely under the control of the prime minister and his cabinet, the Ministry of Foreign Affairs (MoFA), the Japanese Defense Agency (JDA), and to a lesser extent (given the relatively small sums of money spent thus far on the program) the Ministry of Finance (MoF).

China's continued opposition to Japan's acquisition of BMD makes the prime minister's leadership critical to the decisionmaking process. It is also imperative because the prime minister and his cabinet hold the power to interpret the Constitution and thus decide what is and is not "defensive-oriented defense," and whether or not the potential collective security aspects of a future BMD system fall inside or outside constitutional boundaries. A politically strong and skillful prime minister can lead the decisionmaking process on BMD. But absent an immediate threat to Japan's security, it is likely that whoever is prime minister will neither commit to a full-fledged system nor cut off funding entirely. Given the controversial nature of BMD, the consensus-oriented nature of Japanese decisionmaking, and the recent history of prime ministers with neither strong convictions on defense issues nor solid political bases, future prime ministers will probably prefer instead to continue a cautious, go-slow stance toward Japan's participation in BMD.

The JDA and the Japan Self Defense Forces (JSDF) are engaged in evaluating the military pros and cons of BMD for Japan, but there is no unanimity as yet. Overall, there is a gradual shift toward support for Japan's participation in BMD research, which can be attributed primarily to the emphasis placed on alliance maintenance considerations. However, a decision to acquire a system may spawn inter-service rivalries over budgets and control, particularly between the Ground Self Defense Forces and the other two services.

The MoFA is seen as an ally of the JDA in supporting BMD, primarily as a means of maintaining and strengthening the U.S.-Japan alliance.

But unlike the JDA, the MoFA's support is not closely linked to the feasibility of the system. To MoFA officials, the defense implications matter less than the symbolic value of participation in the U.S.-Japan alliance. On the other hand, the MoF, given its budgetary control, will care more about the cost and cost-effectiveness of the system. Absent renewed economic growth and strong political leadership, the MoF's tight hold on Japan's purse strings is likely to guarantee a fierce political debate down the road should the United States press the Japanese to agree to support the next, more costly phases of the system's development.

The Ministry of Economy, Trade, and Industry (METI) and the defense contractors in private business form a latent pro-BMD lobby because of the potential technological benefits that could accrue to Japanese industry. However, certain drawbacks—the limited number of areas in which Japan has the capability of developing indigenous technology; the huge up-front investments necessary; and the uncertainty over whether, when, and how much the Japanese government may eventually decide to invest—have prevented this potential pro-BMD group from coalescing into a potent political force.

Although often viewed as relatively weak and compliant, the Diet holds two of the key cards in any decision on BMD. The first is the budget approval process. The second is its ability to rescind or reinterpret its own long-standing resolution on the peaceful use of space. So far, although there has been a general airing of concerns, no meaningful debate has occurred in the Diet. Not only are few Diet members familiar with the technical, political, strategic, and financial issues, but debate has also been hindered by the government's successful argument that, absent a decision to proceed with procurement and deployment, it is premature to address any other concerns. Because of the political upheaval of the last decade, which has splintered the Liberal Democratic Party (LDP) and resulted in a more even distribution of power within Japan's political elite, future Diet debate is likely to be more vigorous than in the past. It could even lead to some major shifts in how Japan construes its defense, including a move toward more autonomy within the U.S.-Japan alliance.

Japan's political parties could potentially exert considerable influence over any BMD-related decision. However, it is too early to tell what the impact of that influence will be on the final procurement

and deployment decisions. While no party has yet taken a clear stance for or against acquisition of a full-fledged BMD system, the major parties have begun to clarify their positions on some of the surrounding issues that will create the decisionmaking environment. The positions each party takes on collective security, the role of China in Asia, Japan's role within the U.S.-Japan security alliance, and reform of the Constitution will provide clues to their preferences with regard to specific decisions on BMD.

The likely fragility of any ruling coalition will increase the need for compromise in order to make difficult decisions. If the current LDP-Komeito-Conservative Party governing coalition holds together, the Buddhist-backed Komeito is likely to demand (1) Japan's control over the decision to launch, to avoid a perceived participation in a collective defense arrangement; and (2) the inclusion of China in regional security dialogues, in order not to risk provoking an arms race in Asia.

The Ministry of Economics, Trade and Industry is interested in BMD only to the extent that it provides net benefits to Japanese industry. Some within METI insist that Japanese participation would

- strengthen Japan's defense sector
- improve the R&D and technology-acquisition capabilities of participating corporations
- provide possible "spin-off" benefits to the commercial sector.

However, skeptics question whether there will be any technological spin-off from the BMD plan. In this sense, BMD is looked upon as very different from the FSX, where Japan was in a position to develop its own indigenous technology. Except in a few areas such as sensors and radar, Japan is not thought to be in a similar position with regard to BMD development.

## **MAJOR ISSUE AREAS**

### **U.S.-Japan Alliance Maintenance**

BMD has the potential to either strengthen or weaken the U.S.-Japan alliance by affecting bilateral trust and cooperation on such issues as

the reliability of U.S. deterrence; technology; cost; intelligence sharing; and the interoperability of U.S. and Japanese forces.

### **Financial Constraints**

Cost-related issues play an important role in Japan's consideration of BMD. Three aspects are of particular importance: (1) the overall affordability of a fully deployed system; (2) the potential financial impact of deployment of BMD on existing military programs; and (3) the potential impact of deployment on the budgets of the individual armed services.

### **Legal Considerations**

Four legal concerns influence Japanese decisionmaking regarding BMD: (1) constitutional prohibitions against participation in collective defense efforts; (2) legislative resolutions prohibiting the military use of outer space; (3) laws against the export of weapons and military-related technologies; and (4) the provisions of the Anti-Ballistic Missile (ABM) Treaty.

### **Technical/Military Feasibility and Architecture Issues**

The technical feasibility of BMD systems and the type of BMD architecture required to meet the conceivable ballistic missile threats confronting Japan remain subjects of considerable debate. Many Japanese observers are highly skeptical about the basic concept of BMD; in particular, some doubt that those types of systems and architectures under consideration by Tokyo could provide adequate defense against the full range of threats confronting Japan.

### **Industrial and Commercial Considerations**

Japanese participation in BMD could provide significant potential benefits to Japan's defense industry and industrial base. This creates a possible convergence of interests between the industrial offices of the JDA, certain divisions within the major defense contractors, and METI. But overall, BMD is not viewed as an area that will generate major benefits in technology development for both military and non-military related industry and commerce.

### The China Factor

Significant controversy exists in Japan over how much consideration should be given to Chinese objections to BMD and to the overall ballistic missile threat posed by China, and over Japan's preferred response to these factors. Japan's political community in particular is highly divided over the nature and significance of the China factor in Japanese policy toward BMD. Many observers in the Japanese security community cite China's missile threat as the major factor compelling Japan to acquire a robust BMD system. But others, including some politicians and officials, argue that Japan should avoid acquiring a BMD system capable of intercepting Chinese missiles, in order to maintain good relations with Beijing and increase the overall independence and flexibility of Japanese foreign policy. A third group argues that the potential deployment of a BMD system could be traded for concrete Chinese concessions on important security issues.

Because of the extreme sensitivity that exists in both government and society toward discussion of China as a potential adversary, the China factor has not played a decisive role so far in Japanese decisions concerning BMD. But many observers believe that China considerations will exert a far greater influence over Japanese calculations if Tokyo seriously contemplates the development and deployment of a relatively sophisticated, upper-tier BMD system.

The Japanese are concerned not only about China's reactions to its own deployment of BMD but also about Beijing's response to efforts by the United States to develop and deploy a national missile defense system. These concerns have generated calls for involving China in open and transparent discussions of BMD systems in the belief that such dialogue could mitigate the potential destabilizing effects.

### CONCLUSIONS AND IMPLICATIONS FOR THE U.S.-JAPAN ALLIANCE

No consensus has yet emerged in favor of the development or deployment of a full-fledged BMD system in Japan (including both upper- and lower-tier components and an integrated battle management/command, control, and communications (BM/C3) infrastructure). This lack of consensus reflects a variety of factors: BMD's

unproven feasibility; its potential huge cost; significant strategic implications; apparently limited technological gains; the absence of a clear and persistent public recognition of the missile threat to Japan and of any informed and detailed public or even elite discussion on BMD issues; and the lack of strong support from any senior Japanese leader or politician.

Many observers believe that the decision on whether or not to move forward on BMD will ultimately be a political one. It will thus be heavily dependent upon the willingness of the prime minister to take the political risk and exercise the leadership that such a decision will require.

Japan's political structure is in a period of transition. Over the course of the next five to ten years—the period during which Japan will confront most of the major decisions regarding the future direction of its BMD program—it is possible to imagine a number of different political configurations. These include a splintering of the LDP brought on by a crushing electoral defeat, the rise of a Democratic Party-led government, or a shift in coalition partners. Who exerts leadership will matter, but party affiliation or labels may not.

The breakdown of the strong ideological biases that separated Japan's political spectrum into two camps—for and against the U.S.-Japan security alliance—has created room for a new consensus to emerge. One of the key precepts of this emerging consensus is the general acceptance of the need for an alliance. But there is an equally strong desire for more autonomy within this alliance, brought on by a recognition that Japan's strategic interests do not always coincide with those of the United States. In particular, for a variety of reasons related to history and geography, Japan has a greater need than the United States to maintain a nonconfrontational relationship with China.

### **Possible Timetable**

A formal decision to move into development and deployment stages could occur within the next four to five years, in response to the likely introduction by the Japan Air Self-Defense Force (JASDF) of an advanced C3 system for air defense, missile defense, or both. Any formal decision of this nature will likely involve a debate over many

of the issues mentioned above. Among these issues, the question of the creation of a U.S.-Japan joint C3 system and the level of Japanese versus U.S. control over long-range surveillance and cueing capabilities will arguably pose especially significant challenges, given the relationship of these factors to core issues such as alliance maintenance and service rivalries.

It is also possible that various components of a BMD architecture, such as the PAC-3 system, additional AEGIS ships, and certain C3 and radar tracking infrastructure elements, might be acquired by Japan's self-defense forces as necessary and planned "upgrades" of existing systems, without any prior debate or decision on ballistic missile defense per se. Assuming the systems are proven operable and effective, however, a basic decision on the construction of a more complete and integrated BMD architecture will almost certainly need to be made at some point, given the highly sophisticated technologies involved, the significant sums required for the development and deployment of such a system, the significant limitations of lower-tier BMD systems such as PAC-3, and the likely pressures created by a future U.S. deployment of TMD systems in Japan.

A full-fledged BMD architecture for Japan will probably consist of a mix of PAC-3 lower-tier and Navy Theater-Wide (NTW) upper-tier systems, supported by a more integrated and extensive Japanese early warning (EW) and BM/C3 infrastructure. Although the U.S. Navy will exert strong pressure on Japan to acquire a Naval Area Defense (NAD) system, its limited intercept range and high cost will likely preclude Japanese acceptance.

Japan will probably need to make a basic decision on the deployment of a combined LT and UT BMD architecture by 2007–2010 at the latest, in response to a likely emergence and deployment by the United States of a workable, largely U.S.-produced NTW (Navy Theater-Wide) TMD system. Given the lengthy list of military acquisitions already in the pipeline, the restricted size of Japan's defense budget, and the long period of time required to procure, deploy, and operationalize an integrated BMD architecture, Japan is unlikely to field a full-blown BMD system before 2015, even if the decision to deploy is made by the end of the decade.

The development or deployment of a BMD system with the United States will likely exert a major influence on the tenor of the U.S.-Japan alliance. The mishandling of the BMD issue by the United States could arguably damage the alliance and U.S. security interests far more than any military benefits obtained from BMD. Yet the potential for mishandling is arguably rather high, in part because significant suspicions or uncertainties exist between Tokyo and Washington over each other's perceptions, motives, and level of commitment to the notion of joint BMD, and because the two sides have thus far failed to conduct a detailed and sustained dialogue over these and other critical issues. Both governments should commence such a dialogue as soon as possible.

### Critical Issues

An important near-term issue for the U.S. side should be to clarify how essential it is for Japan to participate in a more extensive program of joint research and development. The primary objective of the United States should presumably be to ensure that Japan's ultimate posture regarding BMD is fully compatible with the larger political and strategic interests and objectives of the United States and of the alliance.

A second critical issue is interoperability, especially as it concerns early warning and BM/C3 systems. This highly complex factor involves not only technical problems but also problems of political and military coordination and control between the two countries.

A third issue concerns the larger political and strategic implications of various types and sizes of BMD systems acquired by Japan. In particular, the impact of likely Chinese reactions to such systems on Washington and Tokyo's bilateral relations with Beijing, the U.S.-Japan alliance, and the larger Asian security environment should be examined and discussed in detail by both Japan and the United States.

To date, insufficient attention has been paid to these issues by the governments of both countries. While dialogue alone will not eliminate the frictions that will no doubt emerge as the United States and Japan work out the contours of their collaboration on BMD, it is cer-

tain that without it the road ahead for the U.S.-Japan alliance will be bumpy indeed.

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## **ACRONYMS**

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ABL	Air-Based Laser
ABM	Anti-Ballistic Missile
ACS	AEGIS Combat System (also known as AWS)
ALCM	Air Launched Cruise Missile
ASCM	Anti-Ship Cruise Missile
AWACS	Airborne Warning and Control System
AWS	AEGIS Weapons System
BADGE	Basic Air Defense Ground Environment (Japanese battle management system)
BM	Battle Management
BMD	Ballistic Missile Defense
BMDO	Ballistic Missile Defense Organization (U.S.)
BMDR	Ballistic Missile Defense Research (Japan)
BPI	Boost-Phase Intercept
C3	Command, Control, and Communications
C3I	Command, Control, Communications, and Intelligence
C3ISR	Command, Control, Communications, Intelligence, Surveillance, and Reconnaissance

C4I	Command, Control, Communications, Computers, and Intelligence
CAPP	Center for Asia-Pacific Policy
CBM	Confidence-Building Measures
DP	Democratic Party (Japan)
EW	Early Warning
FMCT	Fissile Material Cutoff Treaty
FUE	First-Unit-Equipped
GDP	Gross Domestic Product
GOJ	Government of Japan
GPALS	Global Protection Against Limited Strikes
HPD	High-Power Discriminating (Radar)
ICBM	Intercontinental Ballistic Missile
IRBM	Intermediate-Range Ballistic Missile
IRST	Infrared Search and Track (system)
IT	Information Technology
JDA	Japanese Defense Agency
JASDF	Japan Air Self-Defense Force
JMSDF	Japan Maritime Self-Defense Force
JSDF	Japan Self-Defense Forces
LACM	Land-Attack Cruise Missile
LDP	Liberal Democratic Party
LEAP	Lightweight Exoatmospheric Projectile
LP	Liberal Party
LT	Lower Tier
MAD	Mutual Assured Destruction
MARV	Maneuverable Reentry Vehicle

MEADS	Medium Extended Air Defense System
METI	Ministry of Economy, Trade, and Industry (Japan)
MIRV	Multiple, Independently Targeted Reentry Vehicle
MoF	Ministry of Finance (Japan)
MoFA	Ministry of Foreign Affairs (Japan)
MOU	Memorandum of Understanding
MRBM	Medium-Range Ballistic Missile
MTCR	Missile Technology Control Regime
MTDP	Mid-Term Defense Program (Japan)
NAD	Navy Area Defense
NMD	National Missile Defense
NTW	Navy Theater-Wide
R&D	Research and Development
SALT	Strategic Arms Limitation Talks
SBIRS	Space-Based Infrared System
SDI	Strategic Defense Initiative
SM	Standard Missile
SRBM	Short-Range Ballistic Missile
SSC-SCC	Security Subcommittee, Security Consultative Committee (U.S.-Japan)
TRDI	Technology Research and Development Institute (Japan)
THAAD	Theater High-Altitude Area Defense
TMD	Theater Missile Defense
TMD WG	TMD Working Group (U.S.-Japan)
TPD	Taepodong (North Korean missile)
UAV	Unmanned Aerial Vehicle

UN	United Nations
UT	Upper Tier
WESTPAC	Western Pacific Missile Defense Architecture Study
WMD	Weapons of Mass Destruction

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Chapter One  
**INTRODUCTION**

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### **THE GROWING IMPORTANCE OF BALLISTIC MISSILE DEFENSE**

The idea of ballistic missile defense (BMD) is not new. It originally emerged in the early years of the Cold War as part of the overall strategic competition between the United States and the Soviet Union. The notion that ballistic missiles could be intercepted and destroyed in flight offered the prospect of a system of security based upon an “active defense” rather than the unnerving notion of security based on mutual assured destruction (MAD) by offensive forces.

Although the United States and Russia undertook work on a variety of limited (or “thin”) missile defense systems in the 1960s, both technological constraints and political considerations served to prevent the actual deployment of any ballistic missile defense systems. In the early 1970s, such systems were again considered, and largely rejected, in the context of the strategic arms negotiations then under way between Washington and Moscow. The Anti-Ballistic Missile (ABM) Treaty of 1972 and its 1974 protocol permitted the United States and USSR to construct only token “regional defense” ballistic missile defense systems against limited ballistic missile attacks. Moreover, although the Safeguard version of this limited system was eventually constructed, it was activated only for a brief period of time. In the early 1980s, the Reagan Administration proposed a highly ambitious BMD system—termed the Strategic Defense Initiative (SDI)—intended to protect the United States against virtually any type of strategic ballistic missile attack. Developed in

response to both technological advances and a strong desire to render nuclear weapons “impotent and obsolete,” SDI generated significant outlays of financial and other research and development (R&D)–related resources. Nonetheless, it did not result in the deployment of an actual system, in large part because of its excessive cost, technological uncertainties, and potentially adverse impact on arms control negotiations with the Soviet Union. The subsequent collapse of the Soviet Union in the early 1990s ended efforts to implement the SDI program.

The apparent attractiveness of ballistic missile defense systems has been on the rise since the early 1990s. The 1991 Persian Gulf War bolstered interest in *theater* missile defense (TMD) systems designed to protect U.S. forces and allies overseas. Moreover, at least seven factors, linked to both increasing missile threats separate from the past Soviet-American strategic competition and the growing technological feasibility of possible missile countermeasures, caused the reemergence of serious interest in *national* missile defense (NMD) in the United States in the mid-1990s.

First and foremost, the spread of advanced military technology over the past ten years has made it possible for a growing number of countries to acquire, by indigenous production or importation, basic ballistic missile systems and matching conventional and unconventional warheads, including weapons of mass destruction (WMD)—chemical, biological, and possibly nuclear weapons.

Second, of perhaps greatest concern, these missile-related capabilities are being developed or acquired by specific “countries of concern” to the United States, such as North Korea, Iran, Iraq, and Libya. Even the possibility of ballistic missile use by such states could severely complicate U.S. and allied decisionmaking during future crises, especially if such missiles are WMD-armed.

Third, the danger posed by such developments to U.S. forward-based forces, allies, and friends was demonstrated by Iraq’s use of short-range ballistic missiles against United Nations (UN) coalition forces during the 1991 Gulf War and by North Korea’s development of medium-range ballistic missiles in the 1990s. Moreover, the potential danger posed to the United States was at least suggested by

Pyongyang's subsequent efforts to develop a long-range missile capable of striking U.S. territory.

Fourth, the development of ballistic missile technology by countries with financial and political incentives to export has further accelerated the proliferation of ballistic missile systems, technologies, and components in recent years. For some observers, the increased availability of ballistic missile technology on the world market has arguably increased the chance that both larger numbers of states and even nonstate actors (such as terrorist organizations) might acquire ballistic missiles in the near to medium term.

Fifth, the breakup of the former Soviet Union, Russia's ongoing, severe economic malaise and resulting internal political and social unrest, and the concomitant deterioration of Russia's armed forces have increased the possibility of an accidental or "rogue" launch of long-range ballistic missiles deployed on the territory of the former Soviet Union.

Sixth, in the Asia-Pacific region, the potential dangers posed by North Korea's growing ballistic-missile and WMD capabilities are compounded by the modernization and expansion of China's ballistic missile force, including larger numbers of more capable short-, medium-, and possibly even long-range missiles. This development is of particular concern given growing tensions over the Taiwan issue and China's use of short-range ballistic missiles during the Taiwan Strait crisis of 1995–1996.

Seventh, during the past 15 years, significant advances have occurred in some of the technologies required to construct at least a limited ballistic missile defense system and its accompanying supporting infrastructure, including sensors, rocket motors, radars, and guidance systems. Moreover, the potential technological feasibility of ballistic missile defenses was suggested, if not proven, by the use of Patriot air defense missiles during the Gulf War to defend against Iraqi ballistic missiles. Although Patriot missiles were relatively ineffective overall, a few might have managed to hit their targets and thus for the first time demonstrated the potential strategic utility of BMD systems. However, it could be argued that the real strategic value of the Patriot (and perhaps subsequent systems) was that the promise of a defense kept the coalition together.

Taken as a whole, these factors have greatly increased incentives in the United States to research, develop, and possibly deploy both theater and national missile defense systems. In the aftermath of the Persian Gulf War, President George Bush supported a scaled-back version of President Reagan's Strategic Defense Initiative known as Global Protection Against Limited Strikes (GPALS). Although primarily designed as a national missile defense system, GPALS had a TMD underlayer. In 1993, President Clinton deemphasized the NMD component of the system in response to the arguments that proliferation of short- and medium-range ballistic missiles posed a greater threat to U.S. forward-based forces. However, since at least early 2000, the United States has increased its relative emphasis on NMD development, largely in response to growing concerns over North Korea's long-range missile development program.

## THE RELEVANCE OF BMD SYSTEMS TO JAPAN

### Potential Benefits

According to proponents, the deployment of a BMD system to protect Japanese citizens and military forces offers several potential benefits. First, such a system could significantly strengthen Japan's ability to counter the above-mentioned emergent ballistic missile threats. In particular, Japan is potentially vulnerable to missile attacks or threats from North Korea in the context of a Korean conflict, and perhaps from China in the context of a military crisis over Taiwan.<sup>1</sup> In both instances, Japan could be targeted either as a result of its use as a nearby base area for U.S. forces or because of its direct involvement in such crises. The potential threat from North Korea gained considerable salience for the Japanese when Pyongyang fired a Taepodong (TPD) missile over northern Japan in 1998 (discussed below), although most analysts agree that the greater threat to Japan comes from North Korea's shorter-range Nodong missiles. Japan might also be vulnerable to accidental or unauthorized missile

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<sup>1</sup>Urayama (p. 616) concluded on the basis of interviews with Japanese politicians, security experts, and government officials that China's use of short-range ballistic missiles in 1995–1996 to intimidate Taiwan "... left a big scar on Japan's security psyche and led many Japanese to doubt the credibility of China's no-first-use pledge" regarding nuclear weapons.

attacks from the states of the former Soviet Union, or missile attacks/threats from terrorists. Although the latter threat seems unlikely, some observers believe that Asian animosities toward Japan stemming from World War II make this a scenario that defense strategists should at least not ignore.

Second, a BMD system might strengthen the credibility of the U.S. defense commitment to Japan<sup>2</sup> and improve political cooperation and military coordination between Tokyo and Washington. An effective BMD system capable of offering significant protection to both U.S. forces in Japan and Japanese citizens would arguably reduce the chance that limited conventional or even WMD ballistic missile threats might erode the willingness of the United States to defend or support Japan in a crisis or might more generally impair U.S. force effectiveness in East Asia.<sup>3</sup> Conversely, such a system might also strengthen the willingness of Japan to support the United States in a potential military crisis. On a narrower level, an effective BMD system would also likely encourage improvements in bilateral defense doctrine, the integration of battle management/command, control, and communications (BM/C3) systems between the two armed forces, and the general interoperability of U.S. and Japanese military units. If effectively managed, it could also enhance the overall level of political trust and cooperation existing between the United States and Japan.

Third, an extensive Japanese BMD system would also most likely compel the modernization and integration of Japan's self-defense forces in critical areas, especially regarding C3 infrastructure. The construction of a multilayered system with components managed by

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<sup>2</sup>The credibility of America's defense commitment to Japan has become a more open subject of discussion among Japanese security specialists and Self-Defense Force officers in recent years. This has occurred as part of a larger trend toward more permissive defense politics and an overall greater willingness to discuss national security strategy and deterrence issues. Such greater openness has emerged as a result of generational change, declining expectations in the efficacy of the use by Japan of economic tools in security policy, frustration with Japan's passive diplomacy of the past, and consequent efforts to assume greater defense responsibilities in the context of the U.S.-Japan alliance and to modernize the Japanese military. We are indebted to Michael Green for this observation. Also see Green and Dalton, p. 16.

<sup>3</sup>On the other hand, some observers believe that a fairly robust Japanese BMD system might actually reduce the U.S. willingness to defend Japan in a missile crisis by shifting missile defense responsibilities to Tokyo.

all three services would arguably require major conceptual, organizational, and procedural revisions to facilitate greater interservice compatibility between Japan's air, ground, and maritime self-defense forces. It would also likely augment the roles and capabilities of specific services, and could serve to enhance the relatively low prestige currently accorded the military within Japanese society.

Fourth, a Japanese BMD system might also facilitate the acquisition of sophisticated technologies and industrial capabilities, such as software and systems integration and missile technology, that would be of significant use to both the self-defense forces and private industry. The indigenous development or acquisition of these and other technologies and development processes could strengthen Japan's ability to adopt a more independent defense posture, should the need arise. Such technologies and processes might also strengthen Japan's overall defense industrial base, benefit ailing defense industry corporations, or generate significant spin-off advantages to Japan's commercial sector. The cooperative development and technology sharing required could also benefit both the Japanese self-defense forces and the private sector by leading to the relaxation of Japan's stringent arms export controls, thereby expanding the market and reducing the costs of defense-related technologies.

Fifth, a workable, mobile sea- or land-based BMD capability could constitute an important Japanese contribution to future UN peacekeeping or humanitarian efforts. Such a capability would permit Japan to contribute materially to UN operations without having to contemplate the highly controversial option of placing significant numbers of Japanese troops on the ground.<sup>4</sup> Such a contribution would almost certainly help to avoid the recurrence of international tensions over Japan's contribution that emerged during the Gulf War.

Finally, Japanese participation in a successful BMD program might contribute to a reduction in the global and regional proliferation of ballistic missiles and related technologies. Japan strongly supports

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<sup>4</sup>This is not to deny that even the deployment of a mobile BMD system in a UN operation would likely be unacceptable to many Japanese.

global arms control and counterproliferation efforts. By demonstrating that ballistic missile defense is both technologically feasible and financially affordable, those who seek to acquire or transfer ballistic missiles or ballistic missile technologies might conclude that their efforts are worthless and wasteful.<sup>5</sup>

### Potential Problems

At the same time, the development and deployment of a BMD system in Japan poses certain significant potential military, political, and economic problems or dangers. If mishandled, it could severely weaken the U.S.-Japan alliance by undermining Japanese confidence in the United States' political credibility or in the reliability of the U.S. military deterrent, and by creating division and dissent between the two countries over such issues as cost-, technology-, and intelligence-sharing; the interoperability of U.S. and Japanese forces and command and control facilities; and the conditions under which a Japan-based BMD system might be activated.

Second, the likely huge cost of any effective BMD system could deprive Japan's armed services of sufficient funds to acquire other important military systems, forcing very difficult trade-offs. Moreover, the deployed systems could prove to be inadequate or largely incapable of dealing with the most serious missile threats confronting Japan, thus resulting in both huge financial waste and significant domestic political conflict, especially if the Japanese public were to perceive Japan's BMD systems as being largely ineffective.

Third, the deployment of a BMD system could generate significant legal problems, e.g., by possibly violating Japanese laws prohibiting the military use of space and the export of military-related items, as well as foreign agreements of importance to Japan such as the ABM Treaty and the Missile Technology Control Regime (MTCR). BMD systems could also undermine the general goals of the international

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<sup>5</sup>Several of the above points are drawn from *Theater Missile Defenses in the Asia-Pacific Region*, A Henry L. Stimson Center Working Group Report, Report No. 34, June 2000, Washington, D.C., pp. 63–68 (hereafter, "Stimson Report").

arms control effort. Japan has become a major supporter of this effort in the last decade.<sup>6</sup>

Fourth, a Japanese BMD system would likely aggravate Japan's relations with China and North Korea and possibly prompt one or both countries to increase the size and sophistication of their missile forces capable of reaching Japan.

Fifth, an extensive BMD system under Japanese control could increase fears among some Asian nations that Tokyo would use such a system to strengthen its offensive military capabilities, e.g., in the area of offensive missiles, and more generally to greatly improve its overall defense industrial base.<sup>7</sup>

Given such potential positive and negative consequences, it is clear that Japan's future policies regarding ballistic missile defense will exert a significant influence on Japan's relations with her neighbors, Japanese domestic politics, and, of greatest importance, the U.S.-Japan alliance. Indeed, the decisions that Japan makes in this area could fundamentally alter the character and structure of the alliance, of Japan's military forces, and of the relationship between the Japanese military and Japanese society.

## PURPOSE OF THE STUDY

This study seeks to identify and examine in some detail the many factors influencing Japan's approach to the issue of ballistic missile defense, including the perceptions, motives, and interests of key Japanese players, the role of the United States, the Japanese decisionmaking process regarding BMD issues, and the dynamics of critical considerations such as alliance maintenance, cost, feasibility, commercial and legal factors, political or bureaucratic competition, and the reaction of the People's Republic of China. The purpose of this examination is to assess the pros and cons of various options available to Japan in handling the BMD issue, to identify the most likely course(s) of Japan's future BMD development, and to discern

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<sup>6</sup>As Green and Dalton state (p. 19): "If TMD, or more likely NMD, causes disruption or unraveling of the WMD and missile control regimes, Japan will find its defense policies at odds with its arms control idealism."

<sup>7</sup>Green and Dalton, pp. 68-71.

the possible implications of such development for the U.S.-Japan alliance and Asian stability.

In pursuing these subjects, this study will endeavor to address such questions as the following: What is the specific nature of the ballistic missile threat confronting Japan, both at present and in the foreseeable future? What types of countermeasures are available to Japan and, of these countermeasures, which would probably be the most prudent and effective against what specific threats? To what extent and in what manner has the United States influenced the Japanese stance toward ballistic missile defense? How has Japan responded thus far to the ballistic missile threat and U.S. efforts to elicit Japanese participation in a BMD system? What are the likely future milestones that Japan will confront in grappling with the issue of ballistic missile defense? Which major Japanese leaders and organizations will most influence future BMD decisions and in what manner? How are such issues as alliance maintenance, cost, feasibility, commercial incentives, and Chinese behavior evaluated and handled by key Japanese actors? What is the relative importance of these issues to Japanese decisionmakers? And finally, what implications does the preceding pose for the future of the U.S.-Japan alliance?

## **STRUCTURE OF THE STUDY**

The remainder of the study is divided into three chapters. Chapter Two examines the two major factors motivating Japan's involvement in ballistic missile defense: the threat to Japan posed by ballistic missiles, and the position and behavior of the United States. The chapter also identifies the range of specific countermeasures and responses available to Japan to defend against ballistic missile threats, summarizes the main policies and actions undertaken thus far by Japan in the area of ballistic missile defense, and identifies several future milestones and likely next steps.

Chapter Three identifies the major Japanese individuals and organizations influencing future decisions on BMD and assesses their views and interests. The chapter also assesses how such issues as alliance maintenance, cost, feasibility, commercial incentives, and Chinese behavior are addressed by key players and the relative importance of each issue in the decisionmaking process.

Chapter Four provides general conclusions, assesses the overall implications of the preceding analysis for the U.S.-Japan alliance, and offers some policy recommendations.

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Chapter Two

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**MOTIVATIONS AND RESPONSES**

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The urgency of the ballistic missile defense issue for Japan is prompted by two basic factors: the growing potential threat posed by foreign ballistic missiles, and the policies and actions of the United States in support of a BMD system.

### **THE THREAT**

The specific threats or concerns presented to Japan by ballistic missiles take several forms: (1) the threat to Japan and to U.S. forces based in Japan presented by the possession of medium-, intermediate-, and long-range ballistic missiles by North Korea, China, and Russia; (2) the threat presented by the possibility that other states (especially “states of concern” such as Iraq and Libya), as well as nonstate actors such as terrorists, might use ballistic missiles to threaten or intimidate Japan particularly in the context of Japanese participation in UN peacekeeping or in providing assistance to U.S. troops; (3) the general prospect of regional and global instability resulting from the proliferation of ballistic missile systems and technologies; and (4) the threat posed by short and medium-range ballistic missiles to Japanese or allied forces deployed overseas as part of UN-sanctioned peacekeeping efforts.

#### **North Korea**

Of these threats and concerns, the most significant is North Korea’s possession and development of increasingly more-capable medium- and intermediate-range missiles. Such missiles could be used to

threaten or attack Japan in the context of a conflict on the Korean peninsula or a U.S.–North Korean military or political confrontation. Despite recent improvements in North Korea’s relations with both South Korea and the United States, such scenarios remain possible given the deep-rooted and long-standing nature of the military and political confrontation on the Korean peninsula, the seemingly unpredictable nature of the North Korean regime under some circumstances, and the continued absence of any substantive reduction in the size and disposition of North Korea’s military forces. Japanese public anxiety over the potential threat posed by North Korea’s ballistic missile program significantly increased when Pyongyang fired a rocket over northern Japan on August 31, 1998, ostensibly in a failed attempt to launch a satellite. North Korea’s ballistic missile capabilities are presented in Table 1.

North Korea’s Nodong-1 MRBM (Scud Model-D) is arguably of greatest concern to Japan. It has a range of 1,000–1,300 km (620–800 miles) and could reach most of Japan, including many U.S. bases. North Korea began development of this missile in 1988. It has had only one known flight test in May 1993. During that year, the U.S. Department of Defense announced that the Nodong had become operational. North Korea currently possesses about 100 Nodong-1 missiles. Moreover, the Nodong provides the core technology for the longer-range, two-stage Taepodong (TPD). The Taepodong-1 has a range of 1,500–2,000 km (900–1,200 miles) and could reach all of Japan. The North Korean missile fired over Japan in August 1998 was

**Table 1**  
**North Korean Ballistic Missiles**

	Type	Range (km)	Payload (kg)
Hwasong-5 (Scud Mod B)	SRBM	300	1,000
Hwasong-6 (Scud Mod C)	SRBM	500	700
Nodong-1 (Scud Mod D)	MRBM	1,000	700–1,000
Taepodong-1	MRBM	1,500+	1,000
Taepodong-2	IRBM	4,000+	1,000

SRBM = Short-range ballistic missile, with ranges up to 1,000 km (620 mi.); MRBM = Medium-range ballistic missile, with ranges of 1,001–3,000 km (621–1,860 mi.); IRBM = Intermediate-range ballistic missile, with ranges of 3,001–5,501 km (1,861–3,410 mi.).

SOURCE: Stimson Report, p. 17.

apparently a Taepodong-1 with a solid-fuel third stage. This three-stage rocket might have a range of more than 5,000 km (3,100 miles).

North Korea is also reportedly developing a two-stage Taepodong-2 with a range of 4,000–6,000 km (2,500–3,700 miles) and might extend the range of this missile by adding a third stage.<sup>1</sup> At present, Pyongyang has agreed to place a moratorium on further development of its longer-range missiles, including both the TPD-1 and the TPD-2. Many Japanese defense specialists are not especially concerned about either the TPD-1 or TPD-2, however, because their ranges are generally considered too long to pose a threat to Japan. Instead, these military observers of North Korea's missile capabilities are reportedly placing an increasing emphasis on Pyongyang's significant, and possibly growing, force of Nodong missiles.<sup>2</sup>

North Korea's missile force is likely capable of delivering both conventional and nonconventional (WMD) warheads. Pyongyang had a small nuclear weapons program until at least the early 1990s, when it reached an agreement with the United States to suspend that program, and also manufactures and possesses a wide range of biological and chemical agents. Thus, although North Korea probably does not currently possess a nuclear warhead small enough to be delivered on a ballistic missile, it might possess missile-deliverable chemical and biological warheads. Moreover, the U.S.-led effort to restrain North Korea's nuclear program under verifiable restraint has "not resolved the underlying concern that Pyongyang has the material to develop, or has already developed, one or more nuclear devices."<sup>2</sup>

In addition to its ballistic missile capabilities, North Korea also has an indigenous cruise missile program based on Soviet and Chinese technology. Pyongyang has been manufacturing the Chinese-designed Silkworm anti-ship cruise missile for many years and has two variants with ranges up to 100 km. It is also developing an anti-ship cruise missile with a range up to 160 km. This missile was first tested in July 1994.<sup>3</sup> Given the limited range of such systems,

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<sup>1</sup>CRS Report, p. 14; Stimson Report, p. 17.

<sup>2</sup>Cambone, p. 66.

<sup>3</sup>Stimson Report, p. 19.

however, and the rudimentary level of North Korea's medium-range air- and sea-based strike capability, Pyongyang's cruise missiles do not pose a major threat to Japan at present.

## China

The number, types, and ranges of China's ballistic missile force are far greater than those possessed by North Korea. China currently has two types of MRBMs and one type of IRBM capable of reaching Japan. The MRBM CSS-2 has a range of 2,850 km and the MRBM CSS-5 has a range of 1,800 km (with a conventional warhead) or 2,500 km (with a nuclear warhead). The IRBM CSS-3 has a range of 4,750 km. The long range of China's ICBM CSS-4, 12,000-13,000 km, precludes any threat to Japan. As indicated in Table 2, the total number of medium and long-range missiles possessed by China at present is estimated at approximately between 100 and 185. Moreover, China will likely deploy a new land-based mobile ballistic missile (the DF-31) and perhaps a submarine-launched ballistic missile (SLBM) version of the same missile (the JL-2) by 2005. Both are also capable of reaching Japan. All of these ballistic missiles can carry both conventional and WMD warheads.

China has a relatively large inventory of nuclear and chemical weapons and probably also some biological weapons capable of being delivered by ballistic missiles. Beijing is also developing medium- and long-range anti-ship cruise missiles (ASCMs), land-attack cruise missiles (LACMs) and air-launched cruise missiles (ALCMs), some likely having the ability to carry WMD warheads and all probably deployable against Japan from several platforms.<sup>4</sup>

Although they do not openly acknowledge it, many Japanese strategists and military officers and some Japanese politicians are concerned that China might use its ballistic missile capabilities to threaten or attack U.S. forces in Japan or even Japanese territory and citizens. This could conceivably happen in two contexts: (1) as part of an escalating crisis over Taiwan in which Beijing seeks to prevent the United States and possibly the Japanese government from

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<sup>4</sup>Stimson Report, pp. 23, 25; CRS Report, p. 14.

**Table 2**  
**Types and Estimated Numbers of Chinese Ballistic Missiles<sup>a</sup>**

Delivery Vehicle (Western designator)	Range (km)	Nuclear Weapons Databook (1994)	Military Balance (98-99)	Jane's Strategic Systems (9/98)	Various
<i>Land-based missiles</i>					
DF-3A (CSS-2)	2,850	50	38+	60-80	40-80 <sup>b</sup>
DF-4 (CSS-3)	4,750	20	10+	20-35	10-20 <sup>b</sup>
DF-5A (CSS-4)	13,000+	4	17	15-20	4-10 <sup>b</sup>
DF-21A (CSS-5)	1,800	36	8	35-50	20 <sup>c</sup>
DF-15/M-9 (CSS-6)	600	N/A	4	400	25-50 <sup>b</sup>
DF-11/M-11 (CSS-7)	300	N/A	N/A	200	160-200 <sup>d</sup>
DF-11A (CSS-7 Mod 2)	300	N/A	N/A	N/A	32 <sup>e</sup>
DF-31 <sup>f</sup>	8,000	0	0	0	0
DF-41 (31A)	12,000	0	0	0	0
<i>Sea-launched ballistic missiles</i>					
JL-1 (CSS-N-3)	1,700	24	12	12	12
JL-2 (CSS-N-4)	8,000	0	0	0	0

<sup>a</sup>Adapted from Bates Gill and James Mulvenon, "The Chinese Strategic Rocket Force: Transition to Credible Deterrence," in *China and Weapons of Mass Destruction: Implications for the United States*, National Intelligence Council, Washington, DC, 1999, p. 35.

<sup>b</sup>Dunbar Lockwood, "The Status of U.S., Russian, and Chinese Nuclear Forces in Northeast Asia," *Arms Control Today*, November 1994, p. 24.

Notes continued on next page.

**Table 2—continued**

<sup>c</sup>National Intelligence Council, "Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015," September 1999, p. 11.

<sup>d</sup>Department of Defense, "The Security Situation in the Taiwan Strait," Report to Congress Pursuant to the FY99 Appropriations Bill, 26 February 1999.

<sup>e</sup>Two future brigades of 16 launchers each was first reportedly in Bill Gertz, "China Points More Missiles at Taiwan; U.S., in Turn, Helps Island Boost Defenses," *Washington Times*, 23 November 1999, p. A1; and Bill Gertz, "Second Chinese Missile Base Detected Near Taiwan: Report," *Washington Times*, 8 December 1999, p. A1.

<sup>f</sup>According to Stan Norris, a nuclear weapons expert in Washington, D.C., the DF-41 is now known as the DF-31A. The DF-31, DF-31A, and JL-2 are under development, and are not expected to be in service until the early 2000s or later (DF-31 and JL-2) or until approximately 2010 (DF-31A); the DF-31 was flight-tested in August 1999 and a computer simulation on the DF-31A was reportedly conducted recently.

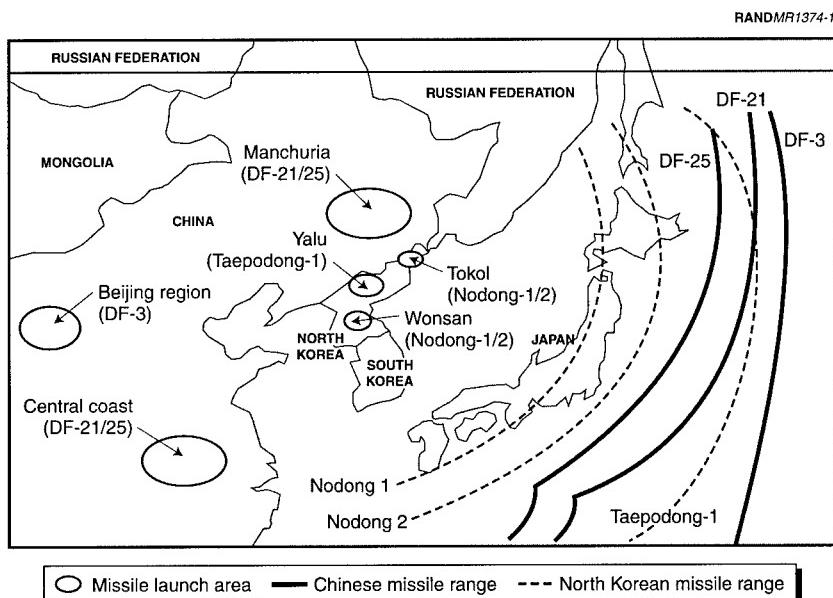
SOURCES: Adapted from Robert Norris, Andrew S. Burrows, and Richard W. Fieldhouse, *Nuclear Weapons Databook*, Volume Five: *British, French, and Chinese Nuclear Weapons*, (Boulder, CO: Westview Press, 1994), p. 377-78; *The Military Balance 1998/99* (London: Oxford University Press, October 1998), p. 178; *Jane's Strategic Systems*, September 1998; Robert S. Norris and William M. Arkin, "Appendix 11A. Tables of nuclear forces," in *SIPRI Yearbook 1997* (Oxford: Oxford University Press, 1997), Table 11A.5, 401; National Intelligence Council, "Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015," September 1999.

providing Japan-based military assistance in a conflict, or at the very least to complicate such efforts; and (2) over the long term, in support of efforts by a much stronger and more confident China to achieve specific territorial, political, or strategic objectives in the Asia Pacific, such as control of the disputed Senkaku Islands, claimed by both Beijing and Tokyo. Given such concerns, some Japanese observers argue that China's significant—and some would argue potentially growing—MRBM and IRBM capabilities constitute the most significant long-term ballistic missile threat to Japan.

The map indicates those areas of Japan that would fall within Chinese and North Korean missile ranges.

## Russia

Russia's missile force of ICBMs, SLBMs, and cruise missiles is much larger and more sophisticated than China's force. As indicated in



SOURCE: Vogt, p. 2.

## Ranges of North Korean and Chinese Ballistic Missiles Capable of Reaching Japan

Table 3, Russia has at least six types of ballistic missiles capable of reaching Japan. However, Japanese concerns over a deliberate Russian ballistic missile attack have diminished greatly since the end of the Cold War, which led to the collapse of the Soviet Union and the subsequent decline of the Russian military.

At present, Japanese concerns are focused more on the potential consequences for Japan of either perceived reductions in central governmental control over ballistic missiles and WMD warheads in the former Soviet Union or the further dissolution of Russian politics and society. Such developments raise the possibility that nonstate actors hostile to Japan might acquire formerly Soviet ballistic missiles and WMD warheads or that one or more ballistic missiles deployed in the territory of the former Soviet Union might be launched by accident or without authorization against Japan or U.S. forces in Japan.

**Table 3**  
**Russian Ballistic Missiles**

	Type	Range (km)	Payload (kg)	Status
SS-1 Scud	SRBM	300+	1,000	In service
SS-19 Stiletto	ICBM	10,000	43,500	3 deactivated
SS-21 Scarab	SRBM	120	482	In service
SS-24 Scalpel	ISBM	10,000	40,500	Modernized; 1 warhead
SS-25 Sickle	ICBM	10,500	1,000	In service; 1 warhead
SS-27 Topol M	ICBM	10,500	?	In production
SS-N-20 Sturgeon	SLBM	8,300	2,270	In service
SS-N-20 Sturgeon	SLBM	8,300	1,360	In service

SRBM = Short-range ballistic missile, up to 1,000 km (620 mi.); MRBM = Medium-range ballistic missile, 1,001–3,000 km (621–1,860 mi.); IRBM = Intermediate-range ballistic missile, 3,001–5,500 km (1,861–3,410 mi.); ICBM = Intercontinental ballistic missile, 5,501+ km (3411+ mi.); SLBM = Submarine launched ballistic missile.

SOURCE: CRS Report, p. 8.

## Other Threats

Several recent U.S. studies of the ballistic missile threat highlight the possibility that “states of concern” such as Iraq and Libya, or nonstate actors such as terrorists, might employ ballistic missiles to

threaten, intimidate, or even attack the United States, U.S. forces deployed overseas, or U.S. allies.<sup>5</sup> These studies also stress the prospect of regional and global instability resulting from the general proliferation of ballistic missile systems and technologies. Given Japan's position as a key ally of the United States in Asia, its government and citizens should also be concerned about these potential additional threats.

Finally, some Japanese strategists and military officers are concerned by the threat to UN peacekeeping forces posed by short- and medium-range ballistic missiles in the hands of Third World states and nonstate actors. This kind of threat was realized during the Gulf War, as noted above. Although Japan does not currently permit its own combat forces to participate in UN peacekeeping operations, some observers believe that such participation might occur in the future or that, even without direct participation in combat, Japan should consider developing the capability to assist UN forces through the provision of ship-based theater BMD systems.

### THE ROLE OF THE U.S. GOVERNMENT

Although the above threats and concerns are important factors motivating Japanese interest in ballistic missile defense, one cannot deny that the policies and actions of the United States—as a strong advocate of BMD systems, as the only alliance partner upon whom Tokyo depends greatly for its security, and as a provider of military forces based on Japanese territory—also greatly influence Japanese perspectives and calculations.

The United States and Japan have been discussing ballistic missile defense issues since the inception of the SDI program in 1983. Moreover, Tokyo was familiar with the U.S. BMD programs of the early 1990s and with the U.S.-Russian negotiations in 1990–1992 on amending the 1972 ABM Treaty to permit the deployment of global BMD systems against limited ballistic missile attacks (the so-called

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<sup>5</sup>See, for example, "Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015," National Intelligence Council, Washington, D.C., September 1999.

“global protection system” or GPALS).<sup>6</sup> Although Washington was reportedly interested in the possibility of Japanese involvement in the SDI program in the 1980s (largely to reduce U.S. costs), concrete bilateral discussions and studies of BMD systems for Japan began in the 1990s, in the context of the GPALS concept. At the time, Japan was reportedly very hesitant to become involved in a BMD program.

The U.S. BMD program significantly conflicted with postwar Japanese policy in three ways: (1) the original proposal included the notion of deploying interceptors in space, which conflicted with Japan’s Diet resolution prohibiting the militarization of space; (2) the cooperative aspect of the GPALS system would violate Japan’s proscription against participation in collective defense organizations; and (3) the program allowed (but did not require) BMD-related technology sharing among its members, thereby posing a potential violation of Japanese limits on defense-related exports.<sup>7</sup> Many Japanese were also concerned over the unproven feasibility of many BMD technologies.

By the early 1990s, the United States had begun to place more emphasis on seeking Japanese participation in the theater missile defense (TMD) component of its BMD program, primarily to obtain technology, funding, and possibly customers for what was becoming a complex and expensive program.<sup>8</sup> The United States hoped that Japanese participation would reduce U.S. costs at a time of tight defense budgets; possibly reduce Japan’s growing trade surplus with the United States; and deflect the charge that Japan would obtain a “free ride” by receiving the technological, political, and military

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<sup>6</sup>Cambone, p. 68.

<sup>7</sup>Cambone, p. 68.

<sup>8</sup>Cronin et al., p. 173. Former Secretary of Defense Les Aspen had announced in May 1993 that the United States would henceforth place a priority on TMD research and development, thus confirming the end of the SDI effort to construct a large-scale BMD system and the shift away from the GPALS concept toward a more limited national missile defense concept. This shift had occurred largely because the United States no longer faced the threat of a massive Soviet missile attack and in response to the growing perception, stimulated by the experience of the Gulf War, that the major threat to United States territory, U.S. forces overseas, and U.S. friends and allies was now posed by theater missiles possessed by Third World countries. Later in the same month, North Korea test-fired four ballistic missiles, including the Nodong-1, into the Sea of Japan, thus apparently further validating this assessment.

benefits of a U.S.-developed TMD system deployed to protect U.S. forces in Japan (and most likely parts of Japan) without paying the costs of such a system. At that time, much of the U.S. emphasis in interactions with Japan was reportedly placed on technology reciprocity and financing.<sup>9</sup>

The possibility that Japan could contribute financially to the BMD program seemed especially likely after the Gulf War, when Tokyo had contributed a huge sum to the United Nations effort. Thus, in general, the United States approach “. . .was not based on regional circumstances or Japan’s actual defense needs, but on the assumption that Japan should support U.S. global leadership generally.”<sup>10</sup> Not surprisingly, many politically powerful interest groups in Japan viewed the U.S. stance as a threat to Japan’s defense technology and industry base. Indeed, many in Tokyo felt that Washington was more concerned with obtaining Japanese technology and funds than in defending Japan.<sup>11</sup>

By the mid-1990s, the U.S. rationale for Japanese participation in the planned BMD program had shifted, due to tight Japanese government budgets, the booming U.S. economy, and Japanese frustration and resentment over the United States’ “burden sharing”-based approach. Coinciding with the effort to strengthen the U.S.-Japan security alliance and revise the guidelines for U.S.-Japan defense co-operation, the TMD program was recast as primarily an alliance maintenance issue and an effort to strengthen Japanese security.<sup>12</sup> Despite the adoption of this more “soft-sell” approach, however, the United States continued to pressure Japan to participate in TMD-related research and development activities, largely in response to signs of significant improvements in North Korea’s ballistic missile program. This occurred even though deep-seated and unresolved disagreements reportedly had emerged by the mid-1990s in Washington regarding the usefulness of Japanese cooperation.

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<sup>9</sup>Cronin et al., p. 172.

<sup>10</sup>Stimson Report, p. 65.

<sup>11</sup>Cronin et al., p. 172.

<sup>12</sup>Stimson Report, p. 65; Cronin et al., p. 172.

Critics of Japanese participation in a U.S.-led BMD system argue that any missile defense system beyond a limited, lower-tier system will overwhelm Japan's limited national security resources and absorption capabilities and pose unmanageable strategic dilemmas for Washington and Tokyo (both factors are discussed in some detail in Chapter Three). In contrast, in addition to the burden-sharing and enhanced defense cooperation arguments mentioned above, U.S. proponents of Japanese participation insist that Tokyo's acquisition of a BMD system would enhance both countries' strategic position in Asia by strengthening extended deterrence and reducing the overall vulnerability of Japan and U.S. forces in Japan to limited ballistic missile threats during a regional crisis. Moreover, proponents argue that the United States will in any event eventually deploy a TMD system to defend its forces in Japan and under such circumstances could not conceivably deny such a system to the Japanese government, since a U.S.-only TMD force would allegedly impede interoperability and defense cooperation, and perhaps provoke resentment among the Japanese public.<sup>13</sup> The U.S. Navy and several U.S. Navy defense contractors are particularly strong supporters of Japanese acquisition of the naval-based TMD systems.

This debate has persisted within the United States to the present. However, by the late 1990s, enthusiasm for Japan's active participation in the BMD effort apparently had begun to wane in some quarters of the U.S. government. This has occurred in part because of the growing emphasis within the United States on achieving a technologically feasible national missile defense (as opposed to theater missile defense) capability. Although TMD continues to receive significant levels of funding, in recent years the U.S. government has arguably focused greater efforts on the NMD program, in response not only to North Korea's unexpected development of a nascent long-range missile capability but also to growing concerns over improvements in China's long-range ballistic missile program.<sup>14</sup> In addition, toward the end of the Clinton administration U.S. enthusiasm for Japanese participation in the

<sup>13</sup>Cronin et al., pp. 173-175; Green, pp. 112-113.

<sup>14</sup>The latter concern was stimulated by a rash of largely unsubstantiated or inaccurate reports appearing in the late 1990s that China had achieved major leaps in its ICBM program by stealing major U.S. missile and nuclear warhead secrets.

TMD effort diminished because of the continued lukewarm level of Japan's actual involvement. Although Japan decided in 1993 to participate in a study with the United States on developing a joint BMD system (the Japanese Government-led U.S.-Japan Bilateral Study on Ballistic Missile Defense), it did not actually formally decide to participate in a U.S.-led TMD program until 1999. This decision (discussed in greater detail below) was spurred by the above-mentioned North Korean TPD-1 launch of August 1998, which generated public support for a missile shield and diplomatic cover by providing tangible evidence of a previously theoretical threat. Moreover, Japan's financial contribution to the TMD development effort, totaling approximately \$300 million over a six-year period, is viewed by some in Washington as a relatively insignificant amount compared to the overall projected costs of the entire TMD program.<sup>15</sup> For example, the United States has committed approximately \$2.3 billion to Block I Navy Theater-Wide (NTW) development over the next five years.

However, the current Bush administration's decision to build and deploy a multilayered National Missile Defense (NMD) system could produce a renewed emphasis on Japanese involvement in a U.S.-led TMD system. Evidence points to a strong desire on the part of key officials in the Bush administration to expand the scope of Japan's current participation.

## JAPANESE OPTIONS

To cope with the ballistic missile threats discussed above, Japan could employ a variety of military-related countermeasures, either independently or in cooperation with the United States.<sup>16</sup> These

<sup>15</sup> However, some observers believe that the relatively low amounts committed by Japan to joint TMD development are at least partly due to "...the relative inattention and low level of funding the United States has committed to the joint TMD program to date." Green and Dalton, p. 17.

<sup>16</sup> This discussion does not cover every possible Japanese response to potential ballistic missile threats and U.S. pressure. For example, Tokyo could take no action whatsoever, or it could put all of its efforts into global and regional arms control activities. However, the purpose of this section is to evaluate the options available to Japan in the military realm.

countermeasures fall into three broad categories: offensive measures, passive defense measures, and active defense measures.

### **Offensive Measures**

Offensive measures include both “counterforce” weapons such as conventionally armed offensive missiles and strike aircraft capable of destroying ballistic missile bases, launchers, and C3 facilities; and “countervalue” weapons such as WMD-armed missiles and aircraft capable of destroying population centers. Such capabilities would serve to deter potential aggressors from threatening or using both conventionally and WMD-armed ballistic missiles, or to retaliate against a ballistic missile attack and thereby eliminate or severely diminish an aggressor’s ability to continue an attack.

Although hawkish politicians and defense strategists occasionally hold out the option, Japan has essentially excluded the possibility of acquiring highly effective offensive capabilities (both conventional and WMD), largely for historical and domestic political reasons.<sup>17</sup> The United States would also likely oppose such capabilities as provocative and potentially destabilizing to the Asia-Pacific region.

### **Passive Defense Measures**

Passive defense measures include all efforts designed to reduce the effectiveness of a ballistic missile attack on Japan, such as civil defense, deception, camouflage, hardening of targets, mobility, redundancy of targets, etc. A sole reliance upon such measures is viewed by many specialists as inadequate, given both the potential size and sophistication of the ballistic missile threat confronting Japan and the potentially adverse effect on citizen morale of reliance on passive measures alone. Because civil defense and hardening would likely prove inadequate against the damage even a small number of WMD-armed ballistic missiles could cause, the absence of any identifiable

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<sup>17</sup>See Vogt, p. 3. Moreover, many Japanese are acutely sensitive to the possibility that the use of preemptive, conventionally-armed offensive strikes by Japan against the missile sites of a potential adversary could violate international law and invite international condemnation. Also, a failed preemptive attack could invite the action it sought to prevent and result in an escalation of hostilities. See Ogawa, p. 3.

BMD capability could provoke considerable panic among the Japanese populace should the Japanese islands come under missile attack. On the other hand, passive measures could reduce casualties from such an attack and thus form an effective underlayer to a missile defense system. Hence, whatever measures Japan takes to cope with the ballistic missile threat will likely include some type of ballistic missile defense system.

### Active Defense Measures

Active defense measures consist primarily of efforts to intercept and destroy attacking missiles, including all forms of ballistic missile defense. To be successful, active defense measures such as national or theater missile defense systems require outstanding intelligence regarding the missile threat, early warning (EW) and close tracking and cueing capabilities, the ability to distinguish incoming warheads from decoys, an efficient battle management system, a highly integrated command, control, communications, and intelligence (C3I) infrastructure, and interceptors capable of homing in on fast-moving targets and neutralizing them.<sup>18</sup> Japan could theoretically acquire and deploy elements of at least four general types of BMD systems, each with several variations in platforms and technologies:<sup>19</sup>

- Lower-Tier (LT) systems—designed to intercept primarily short-range (less than 1,000 km) ballistic missiles within the atmosphere (endoatmospheric), as well as cruise missiles and aircraft, utilizing relatively slow-flying interceptors that maneuver to their targets. These systems provide “point defense” for small areas. Variations include: (1) Land-Based Patriot PAC-3, intended to target SRBMs in terminal phase and cruise missiles; (2) Medium Extended Air Defense System (MEADS), to target SRBMs in terminal phase and cruise missiles; and (3) Sea-Based Navy Area Defense (also known as NAD), to target SRBMs in terminal phase

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<sup>18</sup>Stimson Report, p. 2.

<sup>19</sup>The following discussion is based on CRS Report, Summary, p. 1, and pp. 33–34; Stimson Report, pp. 3–9; Cronin et al., p. 171; and DoD report, p. 4.

and cruise missiles. The latter is intended to complement the NTW system, discussed below.<sup>20</sup>

- Upper-Tier (UT) systems—designed to intercept ballistic missiles with ranges up to 3,500 km, using hit-to-kill interceptors with infrared sensors. These systems are generally intended to help protect relatively large areas when employed in conjunction with PAC-3 or NAD LT point-defense systems, i.e., as part of a “layered” system. Variations include: (1) Theater High-Altitude Area Defense (THAAD) (upper endoatmospheric and exoatmospheric), to target SRBMs, MRBMs, and IRBMs with an apogee of 40+ km (25 miles) in midcourse and terminal phase; and (2) Sea-Based NTW, Block I or II (exoatmosphere), to target SRBMs, MRBMs, and IRBMs with altitudes of 100+ km in ascent or mid-course.<sup>21</sup>
- Boost-Phase Intercept (BPI)—designed to intercept ballistic missiles in the initial (boost phase) part of their flight, while their rocket motors are still burning and before they deploy independently targetable warheads or countermeasures. Such systems provide an early intercept capability requiring rapid detection and forward stationing of interceptors. Variations include: (1) Air-Based Laser (ABL), to target any ballistic missiles within several hundred kilometers of the ABL-equipped aircraft; (2) Space-Based Laser, to target any ballistic missiles within view of a satellite; (3) Air-Based Unmanned Aerial Vehicle (UAV) with interceptor, to target any ballistic missiles within a determined range; and possibly (4) elements of the sea-based NTW system, although to achieve boost-phase intercept the NTW system would have to undergo significant modifications resulting in essentially a brand-new capability.<sup>22</sup>
- National Missile Defense (NMD)—designed to intercept ballistic missiles over a large territory from a variety of origins. The system, proposed by the Clinton administration, was intended to defend national territory against a limited ballistic missile attack from either IRBMs or ICBMs. Variations include: (1) Land-based

<sup>20</sup>Stimson Report, p. 3.

<sup>21</sup>Stimson Report, p. 7.

<sup>22</sup>CRS Report, p. 10.

systems, similar to initial or augmented systems planned for the United States, to target ICBMs; (2) sea-based augmented NTW (endoatmospheric) systems, to target MRBMs, IRBMs, and ICBMs at high altitude; and (3) space-based systems similar to those in U.S. research programs, to target ICBMs.<sup>23</sup>

Although there are constraints on some of these options, which will be discussed in detail in Chapter Three, elements of these missile defense systems could theoretically be acquired and operated by Japan independently or in cooperation with the United States. Or they could be part of a larger, integrated missile defense network linking systems in South Korea, Taiwan, and Japan with the United States' EW, communications, battle management, and firing units. In the latter configuration, Japan, South Korea, and Taiwan would of course need to agree to participation in the system, and China would no doubt vehemently oppose Taiwan's involvement.<sup>24</sup>

Given cost, suitability, and other considerations, the most likely type of ballistic missile defense systems ultimately available to Japan, according to many experts, are the following:

- Land-Based Lower Tier, similar to Patriot PAC-3, Configuration Three
- Sea-Based Lower Tier, similar to NAD
- Land-Based Upper Tier, similar to THAAD (THAAD Missile and TMD-Ground-Based Radar)
- Sea-Based Upper Tier, similar to NTW Phase One
- Sea-Based Upper Tier, similar to NTW Phase Two.

The PAC-3 Configuration Three Land-Based Lower Tier system is designed to possess the radar ability to distinguish automatically between heavy warheads and light decoys or debris. It might be able to defend out to several tens of kilometers from the interceptor's launch point. Thus, it will likely possess a good chance of defense against

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<sup>23</sup>CRS Report, p. 10.

<sup>24</sup>Moreover, some transfers might be prohibited by the Missile Technology Control Regime or other agreements such as the ABM Treaty and the Strategic Arms Limitation Talks (SALT) agreement with Russia. See CRS Report, p. 10.

Iraqi-type Scuds with single warheads.<sup>25</sup> The THAAD system is designed to be highly mobile and to possess a “shoot-look-shoot” concept of operations.<sup>26</sup>

Both the upper-tier and lower-tier sea-based BMD systems are based on the evolving capabilities of the AEGIS Weapons System (AWS) and SPY-1B/D radars, which are located on Ticonderoga-class (CGE47) guided-missile cruisers and AEGIS-equipped (DDGE51) guided-missile destroyers. The AWS (also known as the AEGIS Combat System—ACS) is currently deployed on 27 U.S. Navy Ticonderoga-class cruisers and 28 AEGIS-equipped destroyers, as well as four Japan Maritime Self-Defense Force (JMSDF) Kongo-class destroyers. The LT naval system (NAD) is designed to defend small areas against short- to medium-range ballistic missiles, in addition to all aircraft, using the Standard Missile (SM)-2 Block IVA variant.<sup>27</sup> The UT naval system (NTW), currently under development, is being designed to intercept MRBMs and IRBMs using the SM-3, including the LEAP (Lightweight Exoatmospheric Projectile) kill vehicle and other new features beyond the SM-2 Block IV.<sup>28</sup>

The NTW system is not designed to intercept cruise missiles, aircraft, or short-range ballistic missiles that do not leave the atmosphere for any significant period of time because it uses an exoatmospheric kill vehicle that can intercept an incoming warhead only at altitudes above 80–100 km. Given the right placement, a single NTW ship “. . . may be able to defend an area as large as 2,000 km in diameter against a 1,000 km range threat.”<sup>29</sup> The NTW program is designed to obtain a Block I capability against MRBMs and a follow-on Block II capability against both MRBMs and IRBMs by 2008 or shortly thereafter, although even these dates may be overly

<sup>25</sup>O'Hanlon, p. 183.

<sup>26</sup>In 1999, the THAAD program achieved two successful test intercepts after several failures and consequently moved from the demonstration phase into the engineering and manufacturing development phase. Stimson Report, p. 7.

<sup>27</sup>The NAD program is currently in the engineering and manufacturing development phase. It has been delayed by the slower pace of the U.S. Navy's AWS software development effort, not missile development issues. The current projected date for first-unit-equipped (FUE) status is 2003. See Stimson Report, p. 6.

<sup>28</sup>Stimson Report, pp. 5–6, 8.

<sup>29</sup>Stimson Report, p. 8.

optimistic. The Block II variant will focus on defeating threats with ranges over 1,500 km.<sup>30</sup> It will require an upgraded AWS with a new high-power discriminating (HPD) radar, which could be an adjunct to or upgrade of the AEGIS SPY-1B/D radar. The variant also requires development of the capability to achieve allied and joint coordination across a wide range of activities, including air defense, force planning, and coordination of tactical operations.<sup>31</sup>

### **JAPANESE ACTIONS, CURRENT POLICY, AND NEXT STEPS**

Thus far, Japan's response to the challenge posed by the above ballistic missile threats and to U.S. TMD policy has consisted of four sets of activities:

- Internal Japanese governmental and Liberal Democratic Party (LDP) studies, cooperative studies with U.S. nongovernmental entities, and bilateral governmental studies
- Establishment of formal agencies to consult with the United States on BMD issues and to advise the Japanese government
- Limited participation with the U.S. government on collaborative research and prototype production of TMD components
- Decisions on the acquisition of capabilities directly and indirectly related to BMD systems.

#### **Internal Japanese Studies**

A joint U.S.-Japan industry study entitled "Western Pacific Missile Defense Architecture Study" (WESTPAC) was launched in 1989. The study, which cost \$8 million and took four years to complete, examined the feasibility of defending the Western Pacific and Japan from North Korean ballistic missile attacks during the 2000–2005 period and concluded that the Nodong-1 was the major threat to Japan. It recommended that Japan adopt a satellite-based defense communications network; acquire THAAD as a "first-tier" BMD overlay; and

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<sup>30</sup>Stimson Report, p. 8.

<sup>31</sup>Stimson Report, p. 9.

examine the use of a sea-based BMD system. The study was undertaken by a group of leading Japanese and American defense contractors.<sup>32</sup>

In August 1994, a special advisory panel (the Higuchi Panel) was convened and charged with drafting a security policy vision for the 21st century. Then-Prime Minister Tomiichi Murayama submitted the report. It included a recommendation that Japan cooperate with the United States to develop and deploy a BMD system to counter a “limited missile attack including from North Korea and China.” The report also recommended that Japan develop military reconnaissance satellites.<sup>33</sup>

A Government of Japan (GOJ)-led U.S.-Japan Bilateral Study on Ballistic Missile Defense was agreed upon in September 1994 and initiated in January 1995. The study provided extensive simulation and systems analysis to identify and evaluate various alternative missile defense architectures. The results, produced in 1997 and discussed in greater detail in Chapter Three, led to the identification of specific Japanese BMD-related technologies associated with the U.S. Navy Theater-Wide TMD program that would enhance U.S. TMD systems development.<sup>34</sup>

In August 1995, the Japanese Defense Agency (JDA) issued a report entitled “On Research Concerning Ballistic Missile Defense.” This report argued in favor of ballistic missile defenses and stressed Japan’s limited ability to address the ballistic missile threat because of the deficiencies of both the PAC-2 systems then under acquisition and Japan’s existing command and control system. The report’s findings prompted the JDA to call for several studies of relevant technologies and systems, including satellite-linked sensor systems, a more capable weapons system, and a highly integrated C3I system.<sup>35</sup>

<sup>32</sup> *Theater Missile Defense (TMD) in Northeast Asia: An Annotated Chronology, 1990-Present*, by the East Asia Nonproliferation Project, Center for Nonproliferation Studies, Monterey, CA (hereafter, TMD Chronology).

<sup>33</sup> TMD Chronology. See also Green, *Arming Japan*, pp. 147–148.

<sup>34</sup> DoD Report, p. 6. Correspondence with General Noboru Yamaguchi, Defense and Military Attaché, Embassy of Japan, Washington, D.C.

<sup>35</sup> TMD Chronology. According to at least one informed observer, the prime minister’s office and the foreign ministry both privately approved the JDA report’s basic as-

Subsequently, in December 1995, the Mid-Term Defense Program (MTDP) for FY 1996–2000 stated that the government of Japan would conduct extensive research on ballistic missile defense and would come to a conclusion by the end of the MTDP. This resulted in a three-year-long, internal JDA comprehensive research project on Japan's future air defense system, including ballistic missile defense. One of the major objectives of this research was to answer a set of questions as to whether BMD is technologically feasible and financially affordable. While this internal JDA study was being conducted, the Japanese government stated—in the Japan–United States Joint Security Declaration of April 1996—that it recognized that the proliferation of WMD and their means of delivery posed implications for U.S. and Japanese security, and pledged to work with Washington to prevent proliferation and to continue cooperating in the ongoing study of BMD.<sup>36</sup>

A report entitled “The Joint Declaration and Future National Security” was issued by the Policy Affairs Research Council of the LDP on April 18, 1997. This report indicated that discussion of BMD had progressed to the point where the LDP could recommend a “systemic approach in response to missile deployment by countries surrounding Japan,” to include “more active joint studies on the TMD project with the United States.”<sup>37</sup>

The above-mentioned three-year-long internal JDA report on the overall feasibility of BMD for Japan was completed in 1998. The report examined the requirements for a combined UT and LT land and naval BMD system designed to intercept tens of North Korean IRBMs with ranges below 2,000 kilometers at 80 percent effectiveness. It concluded that the protection of Japan by a limited BMD system was, in the words of one interviewee, “both technically feasible and marginally affordable.” It estimated that such a system would cost approximately 2 trillion yen or \$20 billion (equal to approximately 0.34 percent of Japan’s GDP and 40 percent of Japan’s annual de-

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essment that some form of ballistic missile defense was needed by Japan. The JDA has made a statement and the prime minister’s office and the foreign ministry have agreed, but not publicly, that BMD is needed.

<sup>36</sup>Briefing by General Noboru Yamaguchi, “Japanese Government’s View on Ballistic Missile Defense: Current Status and Background,” no date.

<sup>37</sup>Cambone, p. 82, footnote 16.

fense budget) and could be acquired over a period of 15–20 years through joint development with the United States and off-the-shelf technology. Although the report was critical of the THAAD system and largely focused on Patriot and NTW systems, it did not recommend or reject any specific BMD architecture.<sup>38</sup>

### Formal Agencies

Two major Japanese organizations have so far been specifically created to examine the BMD issue:

- A joint U.S.-Japan TMD Working Group (TMD WG) under the Security Subcommittee, Security Consultative Committee (SSC-SCC),<sup>39</sup> was established in December 1993 following the North Korean firing of a Nodong missile into the Sea of Japan in May of that year. The TMD WG is chaired by four individuals, including representatives of the U.S. Asia-Pacific Affairs section of the Office of the Secretary of Defense, the U.S. Ballistic Missile Defense Organization (BMDO), the Japanese foreign ministry, and the JDA. The TMD WG was ostensibly formed to provide a forum for regular discussion of TMD and TMD-related matters such as regional political implications and treaty compliance.<sup>40</sup> However, in reality, the group has focused primarily on technical issues and conducted very few discussions of the political and strategic aspects relating to Japanese acquisition of BMD systems.<sup>41</sup>
- The Office of Ballistic Missile Defense Research (BMDR) in the JDA was established in April 1995 to work with the U.S. BMDO and the U.S. Pacific Command to determine the threat posed by ballistic missiles such as North Korea's Nodong-1, and to assist the GOJ in deciding whether or not to cooperate with the United States on TMD development.

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<sup>38</sup>Interview, Tokyo, June 1999.

<sup>39</sup>The U.S.-Japan Security Consultative Committee consists of the U.S. secretaries of state and defense and the Japanese minister of foreign affairs and the director-general of the JDA.

<sup>40</sup>DoD Report, p. 6.

<sup>41</sup>Interviews, Tokyo, June 1999.

Based on data provided through the TMD WG, as well as on JMSDF and Japanese industry views, the JDA had concluded internally by 1997 that the most logical area for U.S.-Japan bilateral technical TMD cooperation would be in the NTW program. The NTW program was reportedly preferred because the Japanese Self-Defense Forces (JSDF) already had the required platforms (in the form of AEGIS-equipped destroyers), the NTW program was still immature enough to allow Japanese industry involvement, the THAAD program presented significant obstacles (discussed below), and both the U.S. Navy and the JMSDF, along with Japanese shipbuilding interests, had pressed hard for acceptance of the NTW program.<sup>42</sup>

In addition to the two organizations mentioned above, the JDA and the Ministry of Economy, Trade and Industry (METI) in August 2000 established a Study Group on the Defense Technology Base (*Boei Gijutsu Kentokai*), chaired by Tokai University professor Hajime Karatsu, a leading proponent of maintaining a strong indigenous defense industrial base. The purpose of the study group is to improve the efficiency and strategic approach of the defense budget process underlying the MTDP by more effectively evaluating, with input from Japanese industry, the costs of purchasing or indigenously developing sophisticated and expensive military-related systems. The committee has placed a priority on two specific areas: air platforms (such as the P-3C ASW aircraft and the C-1 transport) and C3I- and information technology (IT)-related systems. According to a knowledgeable Japanese observer, the latter includes elements of direct relevance to the electronics and communications components of a BMD system. The need for this type of collaborative group reflects the increasing pressure on the defense budgetary process resulting from shrinking defense budgets and the high and increasing costs involved in developing and procuring advanced weapons systems. Although not exclusively oriented toward the BMD program, this organization reportedly will facilitate the Japanese government's efforts to evaluate the costs of critical elements of a BMD system and to allocate those costs among the services and programs of the self-defense forces.

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<sup>42</sup>Cronin et al., p. 173.

### **U.S.-Japanese Research Cooperation**

A formal decision on research-oriented participation in the NTW program had been expected by the summer of 1998 because of the public disclosure of the above-mentioned internal JDA study, which identified specific Japanese BMD-related technologies associated with the U.S. Navy Theater Wide TMD program. The decision was postponed indefinitely at that time because of a lack of consensus in Japan, as well as pressure from China. As indicated above, support for participation (as well as for the development of indigenous information-gathering satellites) among politicians, the media, and the general public increased significantly as a result of the launch of the North Korean Taepodong-1 missile in August 1998.<sup>43</sup> In September 1998, both houses of the Japanese Diet passed a unanimous resolution condemning the North Korean missile launch and stating that the GOJ should undertake every possible means to secure the safety of the population.

The immediate beneficiaries of this changed mood were the long-time proponents of Japan's acquisition of surveillance satellites. Bolstered by media reports that the slow response of the Japanese government to the missile launch was due in large part to the U.S. failure to share satellite tracking information in a timely fashion, the Japanese government drafted a tentative plan in October 1998 for the introduction of information-gathering satellites. In December 1998, after a Diet debate that centered on the need for Japan to have its own source of reconnaissance data, Japan decided to produce and deploy optical reconnaissance satellites.

The Taepodong-1 launch also created an atmosphere conducive to a more open discussion in the Diet about BMD—in particular, about joint technical research on the system with the United States. Although the Socialist and Communist parties were opposed, and certain members of the Komeito and Democratic Party expressed varying degrees of reservation (even opposition), funding for collaborative research with the United States on the NTW system was finally included in the Defense Agency's budget for 1999. In August

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<sup>43</sup>CRS Report, p. 18; Green and Dalton, p. 17.

1999, a formal Memorandum of Understanding (MOU) was signed with Washington.

According to this MOU, Japan agreed to conduct research on and produce prototypes of four components of the NTW system relating to the NTW interceptor, the Standard Missile SM-3 Block II missile: (1) the lightweight nose cone; (2) the second-stage propulsion system; (3) the advanced missile sensor (infrared seeker); and (4) the advanced kinetic warhead. Japan committed approximately \$9 million to fund the first year (1999) of this joint effort, and the JDA submitted a preliminary budget request of almost \$20 million for the second year.<sup>44</sup> According to the JDA, Japan plans to spend approximately 20–30 billion yen (approximately \$200–\$300 million) over five to six years to fund this technology research effort up to the demonstration and evaluation stages.

From the Japanese perspective, this agreement commits Japan only to a limited program of research and prototype production, not to the development, production, or deployment of any BMD systems—either independently or in collaboration with the United States. The Japanese government makes a clear distinction between the current research phase, the development phase, and the production/deployment phase of weapons development. Hence, Japan's entrance into each phase will likely require a separate decision. Time and again during the debate over joint research, Japanese government officials testified before the Diet that development and deployment were not the issues being debated or decided. Those decisions, they insisted, would be made in 6–7 years; at that time issues such as technical feasibility, cost effectiveness, and Japan's defense needs would be taken into consideration. The United States, however, generally links research and development, and the point of separation of the two falls well within the weapon development stage as defined by the Department of Defense.<sup>45</sup>

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<sup>44</sup>CRS Report, p. 18; Green and Dalton, p. 17.

<sup>45</sup>Stimson Report, p. 63.

## Acquisition Decisions

The most significant TMD-related acquisitions thus far include the following:

**PAC-2.** In 1991, Japan decided to acquire Patriot air defense (PAC-2) systems, followed by a decision in 1995 to acquire 24 enhanced PAC-2 (so-called PAC-2 plus) fire units to protect military installations and urban areas against missile attacks. The Japan Air Self-Defense Force (JASDF) began receiving these units in 1998. They were organized into six battalions, one to each of the JASDF's six air defense missile groups.<sup>46</sup> Moreover, the JDA has subsequently decided to further upgrade these existing fire units to incorporate more recent improvements in both battle management/C3I and the PAC-2 plus interceptor. However, the PAC-2 plus system reportedly has no significant capability against ballistic missiles with high reentry speeds—the sort of missiles that threaten Japan.<sup>47</sup> At the same time, the system provides a foundation upon which more capable lower-tier, land-based BMD systems (such as PAC-3) can be built. The JDA reportedly wants eventually to upgrade the PAC-2 plus system to employ the PAC-3 Configuration Three “hit-to-kill” missile as part of Japan’s MTDP for 2001–2005. However, no such major upgrade decision has been taken by the GOJ as of late 2000.

The JMSDF also wants to procure two additional Kongo-class AEGIS-equipped destroyers over the next mid-term defense program (2001–2005). This would bring the total number of AEGIS ships to six. Several of these naval platforms would provide the foundation for Japanese NAD and/or NTW systems, if the government of Japan decides to acquire such systems.<sup>48</sup>

**Reconnaissance Satellites.** In November 1998, the GOJ approved the development of Japan’s first satellite reconnaissance system, as indicated above. This move, though not directly related to BMD at present, demonstrates that strong political support exists for developing Japan’s satellite-based early warning capabilities. Japan plans to

<sup>46</sup>Stimson Report, pp. 5, 62. Page 5 cites the Vogt article and interviews with JDA officials. Also see Green and Dalton, p. 15.

<sup>47</sup>Vogt, cited in Stimson Report, p. 5.

<sup>48</sup>Stimson Report, p. 62.

launch four satellites by the year 2003—two equipped with radar and two equipped with electro-optical capabilities—for multipurpose information gathering and observation. The GOJ estimates that the total cost of these satellites will be approximately \$1.7–\$2 billion, but some outside observers believe this estimate is extremely low.<sup>49</sup> According to Japanese interviewees, this satellite reconnaissance system as currently envisioned could potentially be used to detect changes in the size and scope of military threats but could not detect the launch of ballistic missiles.<sup>50</sup> Most observers agree that a ballistic missile early warning satellite would be considered a military use of space and thus would violate the Diet resolution prohibiting such use. Furthermore, these satellites will be under civilian government control, and the JDA will be just one of the potential users.

Because the satellites were placed under civilian control and designed to be multipurpose rather than purely military, system acquisition was delinked from cooperation with the United States on BMD. This provided a way around confrontational debates on whether or not a ballistic missile early warning system—a key component of a BMD system—would violate either the Diet resolution or the constitutional prohibition against collective defense.

**Infrared Sensors.** Japan is reportedly modifying its existing infrared sensors to acquire some capability to detect and track ballistic missiles. But these efforts will apparently not adequately address the requirements of sophisticated BMD systems.

Taken as a whole, the above developments suggest that Tokyo has undertaken fairly extensive architecture and technical feasibility studies of BMD systems (with U.S. assistance) and has created formal organizations to support such activities. However, it has so far undertaken no effort to develop or acquire dedicated BMD systems of any kind; nor has it implemented passive defense measures such as civil defense or hardening; nor, according to our research, has it

<sup>49</sup>TMD Chronology. The funding for these satellites reportedly will come from outside the Japanese defense budget.

<sup>50</sup>This is because the satellites reportedly will not possess an infrared sensor capability, which is necessary to detect ballistic missile launches. The Chinese nonetheless fear that Japan intends to eventually install infrared sensors on these satellites, thus presumably signaling Tokyo's desire to employ them as part of a TMD early warning system.

assessed in any thorough or systematic manner the larger political and strategic implications of a Japanese BMD system.<sup>51</sup> Japan is participating with the United States only in a limited program of collaborative research and prototype production for one component of the NTW system.

Although Tokyo is giving priority consideration to eventually acquiring both Patriot PAC-3 fire units and the NTW system for a layered defense against ballistic missiles, and is evaluating the costs of potential BMD-related electronics components, no formal decision has been made to acquire such LT and UT BMD capabilities. In fact, the Japanese government, from the prime minister on down, has made clear public statements that the decision to proceed with joint research is not linked to decisions either to develop or to deploy. These decisions will require full consideration of technical feasibility, the cost effectiveness of the systems, and Japan's future defense needs.<sup>52</sup> Deployed active defense systems so far consist only of a small number of PAC-2 fire units—which have an extremely limited capability against ballistic missile threats.

Moreover, to our knowledge, the Japanese government has yet to undertake any serious study of either C3I or jointness requirements for integrating future U.S. and Japanese BMD systems, including research in those essential software areas required for the development of a complete BMD system, such as system integration. Also, Japan presently has no concrete plans to acquire an independent early warning capability beyond what is provided by its AEGIS platforms and the JDA's BADGE (Basic Air Defense Ground Environment) air defense battle management system (more on this point below). Finally, discussion in the Diet on many critical issues associated with TMD discussed in Chapter Three (e.g., legal, domestic political, and

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<sup>51</sup> One knowledgeable reader of a draft version of this report believes that Japanese government agencies and/or nongovernment advisory or research bodies are almost certainly conducting such assessments on a highly secretive basis. This is no doubt possible. But our research did not unearth evidence of such assessments, despite considerable efforts, and several knowledgeable interviewees insisted that such assessments have not been undertaken as of late 2000.

<sup>52</sup> Testimony of Defense Agency Head Hosei Norota before the Lower House Budget Committee, February 1, 1999. Testimony by Foreign Minister Takemura Masayoshi and Prime Minister Keizo Obuchi before the Upper House Budget Committee, March 17, 1999.

international aspects) has been perfunctory. Government officials have deferred answering some of the more serious questions raised by opposition lawmakers until Japan actually confronts the question of whether or not to go forward with production, procurement, and deployment.

In short, Japan is officially committed at present only to an initial phase of study and joint research on UT-related components and the limited acquisition of LT-related systems. Moreover, these decisions and activities have been undertaken largely in response to public concerns that the GOJ was doing relatively little to cope with a growing missile threat from North Korea, and to express support for the U.S. BMD effort. Even though the prime minister's office and the foreign ministry have reportedly at times expressed their support for moving forward on BMD in private, no thorough discussion has been undertaken or agreements reached, either publicly or privately, on whether and how to proceed with BMD development, procurement, and deployment.<sup>53</sup>

Decisions or actions in these three areas will likely require a greater level of political consensus among many actors on a wide range of controversial issues: the effect of BMD decisions on the U.S.-Japan alliance; financial and legal constraints; the technical and military feasibility of the BMD concept; internal military and bureaucratic rivalries; and the reactions of China and other countries in the Asia-Pacific region. In short, the most significant and difficult decisions regarding BMD for Japan have yet to be made.

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<sup>53</sup>Interviews, Tokyo, June 1999.

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Chapter Three

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**DOMESTIC FACTORS DETERMINING  
FUTURE DECISIONS**

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Future Japanese assessments and decisions regarding ballistic missile defense will be heavily influenced by the interests, calculations, and relationships existing among a wide variety of domestic actors. In considering whether and how to proceed with BMD development, procurement, and deployment, these actors will most likely focus on several key issues. This chapter identifies and discusses these actors and issues.

### **THE MAJOR PLAYERS**

Eight major domestic entities influence Japanese decisions concerning ballistic missile defense:

- The prime minister and the cabinet
- The JDA and the Self-Defense Forces
- The Ministry of Foreign Affairs
- The Ministry of Finance
- The Diet
- The political parties
- The Ministry of Economy, Trade, and Industry and private business
- The public and the media.

### **The Prime Minister and the Cabinet**

The prime minister, as the head of government, his senior subordinates within the cabinet, and their relevant offices hold ultimate executive responsibility within the Japanese parliamentary system for decisions regarding ballistic missile defense. These individuals and agencies guide and shape the major contours of the deliberative process and can exert a decisive influence over the general pace, scope, and content of BMD decisions. Naturally, given the pluralistic nature of Japanese politics, they cannot dictate decisions *per se*. They must coordinate, encourage, and shape the more detailed activities relating to BMD undertaken by the JDA, the Ministry of Foreign Affairs, the Ministry of Finance, the Diet, and those politicians and others who take a strong interest in the issue. However, provided that domestic and international opinion is not in opposition, a politically strong and skillful prime minister can mold the decisionmaking process to reflect his views and interests.

In general, any prime minister has an interest in promoting policies that strengthen the unity and resolve of his political supporters in the Diet. This has been particularly true in recent years, when relatively unstable coalition governments have been the rule. Moreover, on sensitive issues like defense, prime ministers tend to tread lightly so as not to get too far ahead of domestic public opinion or prompt a negative backlash from Japan's neighbors. Almost without exception, postwar prime ministers have also placed high priority on maintaining good relations with the United States. On BMD, there is some tension among these political imperatives. Therefore, given the controversial nature of the BMD issue, the consensus-oriented nature of Japanese decisionmaking, and the recent history of prime ministers with neither strong convictions on defense issues nor solid political bases, it is expected that whoever is prime minister will continue to adopt a relatively cautious stance on BMD, absent an immediate threat to Japan's security. One knowledgeable observer commented succinctly on the choices facing prime ministers with regard to Japan's further participation in BMD, "Depending upon the prime minister, he could see it as a vehicle for demonstrating his own

political leadership, or he could see it as a source of instability and avoid it."<sup>1</sup>

Beginning with Ryutaro Hashimoto and continuing through the signing of the MOU in 1999 under Keizo Obuchi, the prime minister's office managed the campaign for agreement on joint research with the United States on TMD. It orchestrated the pace and timing, decided how quickly to push forward, and worked closely with the Diet and the Ministry of Foreign Affairs on how to handle the issue domestically and internationally and how to explain the decision to those at home and abroad who expressed opposition. During his tenure, Prime Minister Hashimoto was credited with taking an active interest in the initial preparations for the inclusion of funding for joint research on BMD in the JDA's budget. Support for BMD continued under the next prime minister, Keizo Obuchi. Hiromu Nonaka, Obuchi's chief cabinet secretary and his chief liaison to the Diet, was credited with shepherding funding for Japan's contribution to the joint research through the potential political minefields in the Diet.

Despite their successes with maneuvering funding for the program through the bureaucracy and the Diet respectively, neither Hashimoto nor Obuchi is viewed as having articulated a long-range strategic view on BMD.<sup>2</sup> Rather than exerting leadership, Obuchi relied heavily on Chief Cabinet Secretary Nonaka and was content to let the Diet and the LDP take the political initiative. Nonaka and the government were assisted in achieving their objective by what some have ironically referred to as the fortuitous timing of the North Korean missile launch, which created an environment conducive to discussion of a general strengthening of Japan's air defenses—including acquisition of surveillance satellites and a BMD system.<sup>3</sup>

Leadership on the part of the prime minister is seen by some as particularly crucial given the likelihood that China will continue to express opposition to Japan's acquisition of BMD. It is also critical because the prime minister and his cabinet hold the power to interpret

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<sup>1</sup>Interview with official in the Prime Minister's office, Tokyo, June 1999.

<sup>2</sup> Interview with Senior Foreign Ministry Official, Tokyo, June 1999.

<sup>3</sup>*Yomiuri Shimbun*, September 2, 1998.

the Constitution to decide what does and does not fit under the rubric of so-called “defensive-oriented defense.” The government will also most likely have to rule on the issue of the constitutionality of collective defense and may have to decide on additional exceptions to Japan’s Three Principles on Arms Exports (discussed below under “Legal Considerations”).

In the summer of 1999, one senior LDP politician called for such a political commitment from then-Prime Minister Obuchi but acknowledged that it was unlikely to be forthcoming given the divisions in the coalition cabinet at that time.<sup>4</sup> A further instance of Obuchi’s hands-off approach occurred in June 1999 when he received a report from Fukushiro Nukaga, an LDP Diet member and former director general of the JDA, that called for a change in the Diet resolution on peaceful use of space to allow for BMD introduction. Obuchi reportedly expressed his appreciation to the LDP for “moving one half step ahead of the government” on this issue.<sup>5</sup>

Since the initial decision to participate in joint research was taken, there have been two prime ministers, one acting, and five changes in government. Former Prime Minister Yoshiro Mori was viewed as lacking both the political base and the necessary stature with regard to foreign and defense policy to take a definitive stance on such a complicated and divisive issue. In fact, Mori was challenged by opposition leader Yukio Hatoyama of the Democratic Party on the floor of the Diet in July 2000 for failure to raise the issue of TMD’s potential impact on Taiwan and China at the Okinawa Summit in June 2000. This omission was seen as a failure to assert a leadership position for Japan at the Summit.

The new prime minister, Junichiro Koizumi, was propelled into the leadership position on the strength of his popular appeal as an iconoclastic reformer. He is most widely known for his proposal to privatize the vast national postal savings system. But his willingness to confront taboos head-on extends beyond finance and the economy. In his first press conference as prime minister, he stated that he is in favor of a revision of the Constitution to make it easier for Japan to

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<sup>4</sup>Interview, Tokyo, June 1999.

<sup>5</sup>Interview with official in Prime Minister’s office, Tokyo, June 1999.

support the United States militarily under certain circumstances and to clarify the position of the Self-Defense Forces. He admitted, however, that any change to Article 9 was too politically sensitive to tackle at the moment. Negative reaction to these statements from inside and outside his party, as well as concern about his hawkish stance by the Komeito, a key partner in his ruling coalition, makes it unlikely that Koizumi will be able to act on any of these ideas in his first year in office.

To date, no member of the successive cabinets that have held power since the 1998 decision to move forward on joint research has publicly expressed an opinion—either for or against BMD—that differs from the government's line. This line is that Japan has made a very narrow decision to proceed with joint technical research with the United States. It includes the caveat that, although no decision has yet been made to produce or deploy such a system, a ballistic missile defense system is by definition a defensive system and therefore does not pose a threat to any of Japan's neighbors. As such, it is also in full compliance with Japan's Constitution.

### **The Japan Defense Agency and the Self-Defense Forces**

As the primary government agency responsible for the security of Japan, the Japan Defense Agency is most directly engaged in evaluating and assessing the pros and cons of ballistic missile defense from a military perspective. Within the JDA, the Defense Policy Bureau (*Boei Seisaku Kyoku*) is the office formally in charge of BMD because of its overall responsibility for budget issues and defense policy. However, the Technology Research and Development Institute, (TRDI—*Gijutsu Kenkyu Hombu*), the JDA's research and development arm, handles joint research within the JDA and is thus currently the JDA office most involved in the details of TMD-related activities, given Japan's existing focus on a limited program of collaborative research.

Three basic attitudes or interests toward ballistic missile defense apparently exist within the JDA at present, each reflecting different types of functionaries:

- Operational officers, who focus on budgetary issues. These individuals reportedly believe that the development and procure-

ment of BMD systems will require significant cuts in all other weapon systems and that Japan could end up significantly underwriting the costs of an extremely expensive but ultimately ineffective U.S. system. Hence, they adopt a cautious approach to BMD.

- Technology officers, who focus on R&D for future weapons systems. Their influence within the JDA is now reportedly at a plateau, and they are looking for a breakthrough to achieve new increases in funding; hence, they generally support BMD.
- JDA officials directly involved in security relations with the United States. These individuals assess BMD issues largely on the basis of the influence such issues exert upon the Japan-U.S. alliance. Hence, given Washington's long-term encouragement of Japanese participation in the TMD program, these officials strongly support a level of Japanese involvement in BMD sufficient to sustain and strengthen the alliance.

In the late 1980s and early 1990s, the mainstream of the JDA was reportedly against BMD, largely because of cost and feasibility concerns. Some JDA officials (and military officers) also opposed BMD because of a fear that a Japanese BMD system would convey the signal to the Japanese public and others that Japan does not have confidence in the U.S. commitment to defend it against a major attack. To this day, skepticism persists in the military regarding the potential effectiveness of a BMD system given the failure rate of the Patriot to which it is frequently compared and the perceived extraordinary cost associated with fielding even a marginally effective system.<sup>6</sup>

In recent years, however, many JDA senior officials and military strategists have become increasingly supportive of the need for Japan to acquire some type of capable BMD system in collaboration with

<sup>6</sup>Former Joint Chief of Staff Tetsuji Nishimoto is quoted in the *Yomiuri Shimbun*, September 7, 1998, as saying, "Right now there's no way of countering ballistic missiles. All you can do is give early warning and evacuate. Patriots hit less than one in a million." An unnamed JASDF official is quoted in an article by a *Tokyo Shimbun* reporter in December 1999 as having said that to intercept ballistic missiles Japan would have to become like a hedgehog bristling with Patriot batteries scattered up and down the country. The cost, he asserted, would be 5 trillion yen or roughly equivalent to the entire defense budget. "Muda na Heiki," *Gunshuku Mondai Shiryō*, December 1999.

the United States. Although some JDA officials cite the growing ballistic missile threat (including the threat from China) as a reason for such increased support, most reportedly favor BMD as a means of maintaining and strengthening the security alliance with the United States. In other words, alliance maintenance considerations tend in general to explain the bulk of the JDA's increasing support for BMD. On balance, JDA supporters of BMD reportedly favor the acquisition of a combination of land-based LT and naval-based UT TMD systems, i.e., the PAC-3 and the NTW systems. However, the JDA does not vigorously promote such a specific configuration, much less define its size and scope and the timeline under which it should be acquired, because of persistent differences over BMD and BMD architecture among Japan's three armed services.

**The JGSDF.** The Japan Ground Self-Defense Force (JGSDF) is by far the least enthusiastic of the three services about ballistic missile defense because it has the least to gain through the acquisition of such a system. None of the key components of a BMD system (e.g., interceptors, radars, BM/C3 platforms, and early warning, cueing, and tracking facilities) would be under the direct control of the JGSDF, and yet the JGSDF might have to contribute a portion of its budget to cover the cost of those components. However, since the JGSDF is the most politically powerful service, it is unlikely to permit significant cuts in its budget relative to the other services.<sup>7</sup> At the same time, the JGSDF is the oldest service, and the JGSDF chief is expected to evaluate Japan's defense requirements on the basis of the overall national interest. Moreover, the JGSDF might become more supportive of BMD if it chooses to replace its aging Hawk air defense batteries with an indigenous equivalent to lower-tier BMD, or if it is able to take the opportunity afforded by the acquisition of a BMD C4I (command, control, communications, computers, and intelligence) infrastructure to modernize its own command and control systems. As a result of such considerations, some influential senior JGSDF officers believe that the JGSDF might support BMD, especially if the political and strategic reasoning is also convincing.<sup>8</sup>

<sup>7</sup>Stimson Report, p. 69.

<sup>8</sup>At least one senior JGSDF officer with expert knowledge on BMD issues favors the construction of a limited BMD system in order to suppress missile proliferation within the Asia-Pacific region.

At present, however, the JGSDF remains an unenthusiastic supporter of ballistic missile defense.

**The JASDF.** The Japan Air Self-Defense Force (JASDF) is moderately supportive of BMD because it has operational control over the Patriot air and missile defense systems. In addition, the JASDF might further increase its interest in BMD if it plays a lead role in the development of an integrated C4I infrastructure for a future BMD system, as might be possible. The JASDF plans to replace its BADGE air defense system within three to four years, and any replacement system will likely require the capability to counter missiles. Because of this consideration, the JASDF might take the lead in developing the C4I infrastructure for Japan's BMD system. This is especially likely since the JMSDF does not appear to be interested in taking on this responsibility (it has already modernized its C4I system).

On the other hand, there is also a possibility that the JASDF could become reluctant to engage in meaningful discussions or planning regarding C4I systems for missile defense because such potentially politically controversial discussions could cause a delay in the deployment of any C4I system, or because a future BMD C4I system might be developed and operated as a joint command under the Joint Staff. On balance, however, knowledgeable observers believe that the exclusion of missile defense from any future JASDF system would be difficult, and so the JASDF, along with those private corporations involved in manufacturing a C4I system (such as Mitsubishi, Hitachi, Toshiba, NEC, and Fujitsu) will probably want to move forward with the effort.

There are those, however, who will oppose BMD because of the impact it will likely have on other medium- and long-term projects currently planned. Given stable or falling defense budgets, full-fledged acquisition of a BMD system would likely mean the JASDF would face severe cuts in its plans for a new-generation fighter.<sup>9</sup>

**The JMSDF.** The Japan Maritime Self-Defense Force (JMSDF) is by all accounts the most enthusiastic supporter of BMD among the three services. This is largely because the JDA is leaning toward the

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<sup>9</sup>Professor Satoshi Morimoto of Takushoku University and others express this opinion.

development of naval-based BMD systems for UT BMD, which would require the acquisition of additional Kongo-class AEGIS destroyers. Moreover, a UT NTW system would also significantly augment MSDF capabilities in other areas such as personnel training and C4I, and could even become "...the most important element of the Japanese military" in the view of some observers.<sup>10</sup> In addition, the funding for such an enormously expensive acquisition would likely be provided in part by the other services and the central government.

### **The Ministry of Foreign Affairs**

The Japanese Ministry of Foreign Affairs (MoFA) is a central player in the deliberations over BMD, largely because of BMD's direct relevance to the U.S.-Japan alliance and to Japan's relations with important neighbors such as North Korea, China, and Russia. The central importance of the U.S.-Japan alliance in MoFA's calculations regarding BMD is suggested by the fact that the North American Affairs Bureau and the United States-Japan Security Treaty Office reportedly hold primary responsibility for BMD-related issues within the ministry. The Disarmament Section has apparently expressed opposition to Japan's participation in a BMD system, but its voice is not viewed as decisive or even particularly influential.<sup>11</sup>

In the past, the MoFA's evaluations of BMD were also significantly influenced by the views of officials within the China and Mongolian Affairs Bureau. These individuals often stressed the need to maintain good relations with Beijing by adopting a generally conciliatory stance toward China. Hence, they generally did not support the notion of BMD, which was viewed as unnecessarily provocative. However, in recent years, views toward China have toughened within the ministry and among the general public in Japan, driven by a sense that trying to buy China's goodwill through developmental assistance and conciliatory gestures was not resulting in better relations with China or a China that took Japan seriously.

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<sup>10</sup>Stimson Report, p. 67.

<sup>11</sup>Interviews, Tokyo, June 1999.

President Jiang Zemin's official visit to Japan in September 1998 was a low point in relations. Jiang's insistence that Japan issue China a formal written apology for the war, similar to the one issued to South Korean President Kim Dae-jung but without a reciprocal promise on China's part to close the book on the past, was viewed as unstatesmanlike conduct. This, combined with continued evidence of China's proliferation of weapons, nuclear testing, belligerent attitude toward Taiwan, and buildup of ballistic missiles along its coast, have all served to bolster those in Japan who demand a tougher stance toward China.

This is not to say that the MoFA has totally disregarded China's reaction in its decisionmaking process on joint research on BMD or that it turns a deaf ear to Chinese objections now. In fact, as we discuss below, the disclosure of the decision to include funding for joint research with the United States in the fiscal year 1999 budget was timed, in part, to avoid provoking the Chinese immediately prior to Jiang's official visit. Even today, the MoFA continues to dispatch experienced China hands in official and unofficial capacities in an effort to obtain Chinese understanding that Japan's intentions with regard to BMD are benign.

One result of this toughening stance toward China within the MoFA is that, particularly on issues related to security, the influence of those responsible for managing the alliance with the United States has increased. It is thus no surprise that the MoFA tends to assess BMD primarily on the basis of its implications for the alliance. To a significant degree, this makes the MoFA an ally of the JDA in supporting BMD, primarily as a means of maintaining and strengthening the security alliance with the United States. Unlike the JDA, however, the MoFA's support is not closely linked to the feasibility of the system, because the defense implications are less salient in the eyes of MoFA officials than is the symbolic value of the system for the U.S.-Japan alliance. In the view of one senior MoFA official, the ultimate success or failure of the system itself is secondary because even if the system fails in the development phase, "the fact that Japan contributed will remain."<sup>12</sup>

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<sup>12</sup>Quoted in *Yomiuri Shimbun*, February 21, 1999.

The MoFA worked closely with the prime minister's office on the pace and timing of including funds for joint research in the JDA's budget. According to a senior official involved, in February 1998 the Japanese government began studying how to bring about joint research without creating an international furor or a domestic political backlash. Their two chief concerns were to ascertain the extent of Chinese opposition and to understand Japanese public sentiment. Timing was key and directly related to the Japanese budget cycle.

Draft budgets for the following fiscal year from each ministry and agency must be submitted to the Ministry of Finance each year on August 31. Because of political sensitivity over potential Chinese reaction, the decision had been made to camouflage funding for BMD research under the rubric "Other Items" in the JDA's draft budget, thus postponing a public announcement of the government's intention to move forward until after Jiang Zemin's visit to Japan in September 1998. Agreement had been reached within the government that in December 1998, when the Ministry of Finance issued its version of the budget, the project would be formally reinstated as a line item clearly labeled "Joint Research on BMD."<sup>13</sup>

The North Korean missile firing on August 30, 1998, came too close to the budget submission deadline to result in any immediate change in the draft budget, but it did ignite an outcry from LDP politicians to reinstate BMD clearly in the budget sooner rather than later.

China's initial reaction to these calls was muted and reportedly led MoFA officials and others to conclude that the Chinese cared less about BMD in Japan than they did about acquisition of NMD by the United States and the sharing of this technology with Taiwan. During Jiang's visit to Japan, the issue of Japan's participation in BMD was never brought up, though the visit was deemed a failure for other reasons noted above. Since that time, the foreign ministry has been focusing its efforts on convincing the Chinese that Japan has no offensive intent.

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<sup>13</sup>Interviews, Tokyo, June 1999.

### The Ministry of Finance

Though the Ministry of Finance (MoF) will almost certainly not take a political stance on the issue of BMD, it will play a determining role in deciding whether or not to move forward beyond mere technical research. The MoF is almost exclusively concerned with the effect that the research, development, procurement, and deployment of a BMD system will have on the finances of the Japanese government. Given the potentially huge cost of developing an upper-tier BMD system, its unproven feasibility (both discussed in greater detail below), the current financial and economic difficulties confronting Japan, and the warming trend on the Korean peninsula (which calls into question what specific threat the system would be designed to counter), the MoF understandably has adopted an extremely cautious stance toward this issue. It is highly unlikely that the MoF will support a major increase in the Japanese defense budget or special off-budget allocations to cover the costs of a BMD system, especially since the ministry recently decided to limit defense spending increases for the foreseeable future.<sup>14</sup> Hence, some observers believe that the MoF will likely oppose the development and acquisition of a BMD system if such actions require significant annual aggregate increases in government spending.<sup>15</sup>

Absent renewed economic growth and strong political leadership from the prime minister based on a clearly demonstrated need for such a system, the MoF's tight hold on Japan's purse strings is likely to guarantee a fierce political debate down the road should the United States press the Japanese to agree to support the next, more costly, phases of system development. For instance, if the MoF holds the line on increases in defense spending it could spawn internecine fights within the JSDF over which service's weapons programs will suffer the deepest cuts. To the extent that BMD is viewed by some politicians and influential bureaucrats as a subsidy for a U.S. weapons system primarily designed to provide protection for U.S. troops in Japan, it could also generate calls for a reduction in Japan's

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<sup>14</sup>Cronin et al., p. 177.

<sup>15</sup>The JDA and the services have yet to determine where the funding might come from for BMD development and acquisition, or which major defense programs, if any, would be cut. See Cronin et al., p. 177.

host-nation support. Although in large part the decisionmaking process will take place as behind-the-scenes negotiations among various interests within the Japanese bureaucracy, the public debate over these issues is most likely to occur in the Diet through the medium of the budget process. In some sense, that is where it has already begun.

### The Diet

Though often viewed as a relatively weak and compliant deliberative body, Japan's parliament holds two of the key cards that will determine the future course of BMD in Japan. The first card is that it must ultimately vote, through the budget approval process, to approve any special funding allocations or increases required for the development, procurement, and deployment of a BMD system. The second, and equally critical, card relates to its ability to overrule or reinterpret its own long-standing resolution on the peaceful use of space. It is believed by some observers that this resolution stands in the way of deployment of any highly sophisticated BMD system. Hence, the emergence of clear Diet support for or opposition to ballistic missile defense could decisively affect the prospects for future development and deployment of a BMD system.

In September 1998, in the immediate aftermath of the launch of the North Korean Taepodong missile, there was a vigorous airing of views by the members of various political parties. While statements on the floor of the Upper and Lower Houses were generally supportive of some sort of action in response, differences between and within the parties began to emerge.

Diet members belonging to the ruling LDP and the Liberal Party generally expressed their support for Japan's acquisition of surveillance satellites and a BMD system. LDP Diet member Katsuhito Asano was typical of those who spoke in favor of BMD: "Protecting yourself against incoming missiles is the epitome of a purely defensive system."<sup>16</sup> The Communist Party and the Social Democrats pointed out that a move by Japan to acquire BMD and satellites could spur a cycle of rising military tensions in the region and urged a more cau-

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<sup>16</sup>Reported in the *Yomiuri Shimbun*, September 4, 1998.

tious response. Members of the Democratic Party, an uneasy alliance between conservative politicians and former Socialists, also expressed initial support with second-term Democrat Seiji Maehara and went on record in favor of the acquisition of reconnaissance satellites, but there were signs of dissention within the party over this new policy. Finally, while in the Lower House the Komeito-affiliated Diet members did no more than press the government on the facts associated with the North Korean missile launch, in the Upper House the Komeito expressed strong anxiety that this incident would lead to a rise in nationalism and a general move toward the right.<sup>17</sup> In the end, the Diet passed a unanimous resolution in both houses condemning the North Koreans.

The start of the budget deliberations in February 1999 provided the first serious opportunity for Diet members to question the government on its decision to include funding for joint research on BMD in its draft of the fiscal 1999 JDA budget. This questioning took place in the budget committees of the Upper and Lower Houses of the Diet. It was at these sessions that concerns about BMD were raised and the government was given an opportunity to explain its policy.

In the time allotted him in the Lower House Budget Committee, the representative of the Komeito touched on many of the concerns shared by others. He raised questions about whether or not even LT systems would contravene the Diet resolution on peaceful use of space. He asked whether a deployed system could by its nature constitute collective defense since the United States viewed it as an aid to the U.S. Navy. And he expressed concerns about the cost-effectiveness of the system and questioned whether or not it constituted aid for the U.S. defense industry. Finally, citing concerns about the possibility that deployment would lead to an increase in tensions in Asia, he called on the government to take a cautious attitude on joint research. In response, the government emphasized that its current decision was limited to going forward on joint technical research. The government position was that the issues raised by the Komeito Diet member were political questions pertaining to deployment and, as such, premature.

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<sup>17</sup>*Yomiuri Shimbun*, September 4, 1998.

Similar issues were raised in the Upper House Budget Committee in March 1999. Here, the representative of the Social Democrats also questioned both the prime minister and the foreign minister about how they planned to mollify the Chinese given that Premier Zhu Rongji had expressed his adamant opposition.

The Diet discussion on BMD is an ongoing process.<sup>18</sup> To date, these discussions can be characterized more as an airing of concerns rather than real debate leading to a policy decision. In particular, the questioning of government officials that occurs in the budget committee is often thought of more as political theater. It is an effort by opposition parties to elicit information from the bureaucracy to which they otherwise would not be privy and, since the debates in the budget committees are televised live on NHK (the government television network) and excerpted on the evening news, to show the public that they are taking firm stands on controversial issues.

During 1998, the focus of debate was on (1) relations with China; (2) cost; (3) budget; and (4) future policy. By 1999, the focus had widened and deepened. Many Diet members are particularly concerned about the implications of BMD for existing Japanese proscriptions against the military use of space, involvement in collective defense, and the export of defense-related materials (all discussed in greater detail in the next section, "Major Issue Areas"). Diet members are also very concerned about the potential cost of a full-blown UT and LT BMD system, especially as measured against its uncertain effectiveness. Beyond these legal and financial concerns, other Diet members question the basic need for a BMD system and point to the danger of provoking China and North Korea.<sup>19</sup> In short, a wide variety of views exist among Diet members regarding the pros and cons of a BMD system. The opposition in particular has focused on how

<sup>18</sup>U.S. TMD in Japan and BMD have come up for discussion frequently—for instance in the Lower House Special Committee on Defense (April 1999); the Upper House Special Committee on U.S.-Japan Defense Guidelines (May 1999); the Lower House Security Committee (November 1999); the Lower House Foreign Affairs Committee (March 2000); and the Upper House Foreign Policy and Defense Committee (April 2000).

<sup>19</sup>For more on this point, see the discussion below of the position of the political parties.

cost-effective the BMD system is and how such a system would fit with Japan's future foreign and security policies.

Thus far, although there has been a significant amount of time spent talking about this issue in the Diet, all that has been accomplished is a general stating of positions. No meaningful debate has occurred because of the lack of detailed knowledge of what type of system, if any, might be favored or ultimately decided upon. Compounding the problem, few Diet members are familiar with the technical, political, strategic, and financial details of the BMD issue. Debate has also been hindered by the successful argument by the government that absent a decision on the system to be deployed, it is premature to address any of the other concerns.

When it does occur, the Diet debate over BMD is likely to be more vigorous than would have been expected in the past. The political upheaval of the past decade has splintered the LDP and resulted in a more even distribution of power within Japan's political elite. Former LDP politicians who are now part of the Liberal and Democratic parties brought with them their knowledge of LDP policymaking practices and their own connections to the bureaucracy and its vast source of information and expertise.<sup>20</sup> Although such obstacles are not insurmountable, detailed deliberations on each subject will presumably be required before a specific decision to acquire and deploy any UT BMD system can be made. Much of this debate will occur first within the political parties themselves.

### The Political Parties

Since the summer of 1993 when the LDP lost control of the government to a seven-party coalition, Japan's political world has been in a state of extreme flux. Fluidity in the system has resulted in less party loyalty. Increasing opportunism by parties desirous of obtaining power has made it even more difficult to predict what stance a particular party will take on an issue, even one as divisive and emotion-laden as national security. Contrary to the hopes and expectations of many of those who championed electoral reform in the 1990s as a

<sup>20</sup>For a more detailed discussion of this point see Gerald Curtis, *The Logic of Japanese Politics*, New York: Columbia University Press, 1999, pp. 228–234.

way to move Japan toward a two-party political system, the most recent trend has been in the opposite direction. Instead of coalescing around clear-cut policy objectives, parties have emulated the LDP by blurring policy lines that divide their members—becoming “catchall parties”—a trend identified by Gerald Curtis.<sup>21</sup> Although Japan’s political parties will exert a great influence over any decisions taken on the BMD issue, it is too early to tell what the impact of that influence will be on the final decision when it occurs. What follows is a description of the current state of debate in each of the major parties.

**The LDP.** The LDP is generally supportive of acquiring some level of BMD but is divided over how much and at what expense. While the majority of LDP members reportedly support BMD in order to avoid a possible disruption in the U.S.-Japan alliance, others are concerned about its cost and feasibility, the adverse impact it might have on relations with other Asian countries (especially China), and possible constraints on the autonomy of Japan’s national security decision-making process that might result from an excessive reliance on a U.S.-centered BMD system. In short, although the LDP Policy Affairs Research Council has supported the continuation of joint studies with the United States (as indicated above) and some limited discussion of BMD likely occurs in the LDP’s National Defense Subcommittee (*Kokubo Bukai*) and Foreign Affairs Subcommittee (*Gaiko Bukai*), the LDP as a body has yet to examine the BMD issue comprehensively, much less reach any agreement over it. In public, however, LDP members of government have uniformly backed the official government position.

**The Liberal Party.** The Liberal Party (LP) has not expressed a clear view on the subject of BMD either. LP leader Ozawa Ichiro has indicated his tacit approval by supporting the budget allocations provided for BMD research so far, but he has not made any statement explicitly supporting TMD. In the September 3, 1998, debate that preceded the unanimous resolution by both houses condemning North Korea for its missile launch, LP member Tetsuichi Nakamura took a position even stronger than the LDP, asserting that money for TMD research “must be included in the budget.”

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<sup>21</sup>Curtis, p. 164.

**The Komeito.** This party, which emerged as the New Komeito in November 1998, controls the swing vote in the current governing coalition. Given its Buddhist origins, it has traditionally been a strong proponent of building peaceful ties with Japan's neighbors. Over the years, the Komeito position on security and defense has evolved. It is now more moderate and realistic and accepting of the status quo with regard to the U.S.-Japan Security Treaty. However, it was the first party to adopt the so-called Peace Constitution as part of its platform, and there continues to be strong elements of pacifism in its policies. As such, the party has expressed strong reservations about the wisdom of moving forward with BMD.

Komeito Party members support peaceful use of space and question the motivations of the United States in asking for Japanese assistance. They believe Japan's participation in BMD may constitute collective self-defense—particularly if Korea is involved along with Japan in the U.S. system—and fear the breakdown of the ABM treaty and China's opposition. They are also concerned that U.S. NMD is provoking China's increase in missiles, thereby further destabilizing Northeast Asia, and they cite technical problems as a reason for taking a cautious attitude. Their position in the coalition government gives them both a reason to compromise and an ability to influence policy. They have shown themselves quite willing to exercise this clout to slow down or stymie LDP-supported military acquisitions.

In December 2000, the Komeito forced the LDP to drop an appropriation for aerial refueling tankers from the FY01 budget. The National Security Council had approved the inclusion of funds for four tankers in the 2001–2005 defense plan and the JDA had requested 11 million yen in FY01. But with the Komeito fiercely opposed to this acquisition on the grounds that it would provide Japan with aggressive warfighting capabilities, the LDP removed the FY01 funding request, although the item remains in the five-year defense plan.

**The Democratic Party.** The Democratic Party (DP), an amalgamation of conservatives and former Socialists that has been referred to

by its former leader Naoto Kan as the "Party of Thatcher and Blair,"<sup>22</sup> has not yet been able to form a consensus on the issue of BMD. The DP leadership is reportedly trying to develop a consensus view of the U.S.-Japan Security Treaty and will likely have to deal with the BMD issue as part of this process. The party's Policy Affairs Council is handling this subject, but no conclusions had been reached as of late 2000. Former members of Ozawa's Shinshinto, who hold sway in the Policy Affairs Council and the Security and Foreign Affairs Committee of the DP, pushed for approval of both joint research and acquisition of satellites, but others in the leadership wavered, preferring to err on the side of caution. Though the leadership reportedly recognized the necessity of acquiring surveillance satellites, segments within the party expressed reservations about a decision to support joint research on ballistic missile defense.

Though generally thought to be supportive of BMD given his initial position in favor of joint research, DP President Yukio Hatoyama tried to draw a line between his position and that of the "United States-compliant LDP" as part of his strategy prior to the Upper House election in July 2000. He expressed concern that Japan could end up with more burden than benefit—providing technology and money to the United States but gaining nothing worthwhile in return. However, following the election, he has gone on record saying he could support Japan's participation in collective defense. Acknowledgment of the right of collective defense is perceived by many experts as a necessary condition to allow for the eventual deployment of an effective BMD system jointly administered by the United States and Japan.

On the other hand, one outspoken representative of the former Socialist branch of the DP, Yoshito Sengoku, states quite bluntly that he has yet to hear a convincing argument for why Japan needs BMD. He dismisses the idea that either North Korea or China poses a threat to Japan in the foreseeable future and argues that not only can Japan not afford to provide a subsidy for an expensive weapons system to the United States, it ought to be considering cutting host-nation support to U.S. troops in Japan by half.<sup>23</sup> Another member of the

<sup>22</sup>Quoted in Curtis, p. 194.

<sup>23</sup>Interviews, June 1999, Tokyo.

party, Yutaka Kuwabara, has raised concerns regarding the true nature of the threat from North Korea and whether or not movement by the United States and Japan to acquire missile defense would spawn an arms race with China. He has called for prudence.

**The Social Democrats and the Communists.** Both parties are generally opposed to BMD. Some of their members, pacifists who automatically resist BMD on ideological grounds, criticize any military buildup. Others say they would support BMD only if it could provide a 100 percent "leak-proof" shield against all types of ballistic missile attack—an impossible prospect. Still others in these parties oppose BMD because they believe that Japan does not face a credible threat of ballistic missile attack from North Korea, China, or terrorist groups. However, the influence of such viewpoints is declining—both within these parties and among the general public—and Japan's approach to the military and security affairs is thus gradually shifting in a more pragmatic direction.<sup>24</sup>

### **The Ministry of Economy, Trade, and Industry (METI) and Private Business**

Japanese participation in BMD could provide enormous potential benefits to Japan's defense industry and technology base in several ways: by generally strengthening Japan's ailing defense industry sector; by improving the R&D and technology acquisition capabilities of specific corporations; and by providing possible spin-off benefits to the commercial sector.<sup>25</sup> METI is interested in the BMD program but only if it can provide net benefits to Japanese industry, and there are skeptics who continue to question whether or not there will be any technological spin-off effect from the BMD plan.<sup>26</sup> In this sense, BMD is looked upon as very different than the FSX, where Japan was in a position to develop its own indigenous technology. Except in such areas as sensors and radar, Japan is not thought to be in a similar position with regard to BMD development.

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<sup>24</sup>Stimson Report, p. 69.

<sup>25</sup>Stimson Report, p. 67.

<sup>26</sup>*Yomiuri Shimbun*, March 8, 1999.

Several specific Japanese industrial sectors have the capability to contribute the most to the development of a BMD system and hence would stand to gain the most from such participation, given their experience, production prowess, and technological expertise. These sectors include shipbuilding, communications electronics, systems integration, sensors and radar, and some aspects of missile design. In virtually all other areas, U.S. defense corporations possess a decisive competitive advantage over their Japanese counterparts, according to interviewees. Six Japanese contractors have been selected to participate in the collaborative NTW program: Mitsubishi Heavy Industries (MHI);<sup>27</sup> Kawasaki Heavy Industries (KHI); Ishikawajima-Harima Heavy Industries; Fujitsu; Toshiba; and Nissan Motors. They will reportedly be working on the sea-launched UT defense system (NTW Block 2).

At present, however, many interested Japanese corporations are reportedly taking a very cautious stance toward BMD given its uncertain feasibility, the absence of a clear decision by the Japanese government to move from the current, small-scale collaborative research effort to a more robust research and development effort, and the existence of a range of unresolved economic concerns, all discussed in some detail below. Their approach has been characterized as a combination of "expectation and fear."<sup>28</sup> Supporters and detractors of BMD within Japanese industry are divided not by company but by divisions within a company, since it is believed that, for example, the missile, electronics, and radar divisions of a defense company will benefit, whereas other defense divisions will be crowded out.

### The Public and the Media

Despite the fact that North Korea has been able to strike Western Japan with the Nodong missile since the early 1990s, the Japanese public did not express much interest in BMD issues until August

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<sup>27</sup>MHI is the prime contractor for the existing program of collaborative research on the NTW missile, although KHI and other companies are also involved in that effort. Some other corporation might serve as the prime contractor for the future production of the missile prototype components, however.

<sup>28</sup>Interviews, June 1999, Tokyo.

1998, when North Korea fired a Taepodong-1 missile over the Japanese home islands. Since that time, public attention has focused on the need to acquire capabilities to protect against North Korean missiles and to conduct independent surveillance of North Korean behavior.<sup>29</sup> In general, however, Japan has not engaged in a broad public debate or discussion of BMD. The vast majority of the public remains largely uninformed about such critical issues as the technical capability, cost, feasibility, and possible international implications of various possible Japanese BMD systems. Hence, many ordinary citizens hold unrealistic expectations regarding BMD—demanding, for instance, that any BMD system Japan deploys must provide virtually leak-proof protection against all conceivable types of missile attacks.<sup>30</sup>

Media coverage of the BMD issue is highly sporadic and largely precipitated by related events such as the North Korean missile launch, U.S. decisions on NMD, U.S. test results, or (more recently) the release of reports by Japanese research institutes and study groups. As with the public, few journalists possess a detailed knowledge of BMD issues, and many Japanese editorials promote positions on BMD that merely reflect—in knee-jerk fashion—their general editorial stance.

In the immediate aftermath of the North Korean missile launch, nearly all media groups came out in favor of government action to protect Japan by augmenting air defenses, acquiring satellites, and even studying BMD jointly with the United States. Since that time, the newspapers in particular have begun to develop differentiated stances. From May 1999, *Asahi Shimbun* has begun to criticize any form of theater missile defense; *Mainichi Shimbun* and *Tokyo Shimbun* are generally very cautious about BMD but have not openly opposed it; *Yomiuri Shimbun* and *Nikkei Shimbun* have striven to

<sup>29</sup>The public desire for an independent satellite-based surveillance system ostensibly emerged as a result of a common perception among many ordinary citizens and some politicians that the government of Japan had been caught “flat-footed” by the North Korean missile launch of August 1998 and was not quickly informed of the launch by U.S.-controlled surveillance assets. However, knowledgeable interviewees in Japan insist that neither perception is accurate. Moreover, as indicated above, the surveillance satellites that Japan intends to deploy reportedly will not possess an infrared detection capability, thus precluding their use as TMD early warning platforms (but not as military surveillance platforms).

<sup>30</sup>Interviews, Tokyo, June 1999.

maintain a consistently balanced, middle-of-the-road stance; and *Sankei Shimbun* is pro-defense, pro-Taiwan, anti-China and hence pro-BMD. Television has paid very little attention to the BMD issue, focusing instead on the larger implications for Japan of the revised United States-Japan Guidelines for Defense Cooperation. In short, the public and the media are not well informed on the subject of ballistic missile defense.

## MAJOR ISSUE AREAS

The interactions of the above actors in the decisionmaking process will largely center on six key issue areas:

- Alliance maintenance
- Financial constraints
- Legal considerations
- Technical feasibility and architecture issues
- Industrial/commercial considerations
- The China factor.

### U.S.-Japan Alliance Maintenance

As we suggested above, BMD has the potential to either strengthen or weaken the U.S.-Japan alliance by affecting bilateral trust and cooperation concerning such issues as the reliability of the U.S. deterrence; technology-, cost-, and intelligence-sharing; and the interoperability of U.S. and Japanese forces. Because Japan is the junior partner in the alliance with a high level of dependence on the U.S. security umbrella, and given the United States' desire to increase Japanese participation in the BMD program, many Japanese decisionmakers are acutely aware of the potential dangers and opportunities the BMD program presents vis-à-vis the alliance.<sup>31</sup> For some, Japanese participation in BMD is an opportunity to show

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<sup>31</sup>This is particularly the case for officials within the JDA and MoFA. As indicated above, such individuals are inclined to view BMD primarily in terms of its effect on the alliance.

the overall workability of the U.S.-Japan alliance and Japan's confidence in the U.S. deterrent. Even further, joint BMD work could strengthen the alliance by enhancing U.S.-Japan political and military cooperation and advancing integration in a variety of areas.<sup>32</sup> For such individuals, it is critical for Japan to at the very least avoid the appearance of any "free rider" behavior that could damage relations.

For others, however, Japanese involvement in BMD is more likely to create frictions and disputes in the bilateral relationship, and, even more important, could undermine or distort Japanese interests. These observers cite the danger that Japan could become dragged into conflicts in Asia through involvement in a U.S.-led BMD system or become highly dependent on U.S. military systems, thus limiting Japan's military and political flexibility. Conversely, other Japanese officials argue that, on balance, joint involvement with the United States in a BMD system would potentially provide Japan with useful leverage over Washington: If the United States actually needed Japan's help in the future, Tokyo would likely be less passive and potentially more influential if it had a major role in missile defense.<sup>33</sup>

Japanese observers point to a wide range of issues connected to BMD development that could significantly affect U.S.-Japan relations:

**Cost Sharing.** Some observers continue to suspect that the United States is urging Japan to participate in the BMD program primarily to reduce its own research and development costs, and not necessarily because ballistic missile defense will strengthen Japanese security. Hence, these individuals are strongly opposed to the commitment of large sums of money for BMD systems, at least in the near term. This belief is reportedly held by some METI and MoF officials, as well as a few in the MoFA and the JDA. Although such individuals constitute a minority at present, their viewpoint is persuasive, given the unproven feasibility of BMD, Japan's current economic problems, and the past emphasis placed by some U.S. officials on the burden-sharing aspect of collaborative development.

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<sup>32</sup>Stimson Report, p. 66.

<sup>33</sup>Stimson Report, p. 66.

**Technology Sharing and Transfer.** METI, in particular, is concerned that Japan will gain few technological benefits from cooperation with the United States in a BMD development program. As in the case of the development of the FSX (F-2) fighter, differences over technology control, technology sharing, and technology transfer could precipitate significant friction between the two sides. In particular, Japanese limits on the export of military-related equipment could complicate the management of technology issues, including the sale or transfer of BMD-related systems to third countries. Such concerns prompt some officials to press for a greater reliance on the indigenous development of key BMD technologies.

**Integration of Air Defense Systems.** The expansion of BMD to include UT systems will require effective bilateral integration in air defense sensors, systems, doctrine, and command, control, communication, intelligence, surveillance, and reconnaissance (C3ISR) capabilities. Hence, it will likely require high levels of systemic bilateral coordination and the rationalization of design, development, procurement, fielding, doctrine, and operations.<sup>34</sup> Some in the JDA and beyond are concerned that such extensive integration might generate significant friction between the two countries and create excessive Japanese dependence on U.S. systems. Some experts have even gone so far as to call for Japan to quickly develop the technology to field its own early warning satellites in order to avoid excessive dependence on the United States for this vital component of a TMD system. Finally, common use of U.S. systems would solve many interoperability problems but would likely require U.S. contractors, not Japanese,<sup>35</sup> and thus perhaps generate significant resistance among Japanese corporations.

**Intelligence Sharing.** In a future BMD system, Japan will likely remain dependent on U.S. space-based early warning assets. As indicated in the above discussion of the August 1998 North Korean missile launch, some Japanese military observers, politicians, and ordinary citizens fear that such dependence could severely limit Japan's freedom of action in a crisis. Hence, some of these individuals favor

<sup>34</sup>Cronin, pp. 178–179. This source identified the C3 area as one of the most fundamental obstacles to successful joint BMD development.

<sup>35</sup>Stimson Report, pp. 70–71.

the development of independent early warning capabilities, despite the legal obstacles to such an action. Some U.S. observers reportedly oppose the emergence of independent Japanese capabilities in this area because of a desire to maintain some level of U.S. control over Japanese BMD-related decisions in a crisis.

**Utilization.** Some Japanese are concerned that a Japan-based, U.S.-controlled, mobile TMD system such as the NTW system could be used in a regional crisis against the wishes of the Japanese government, thus highlighting or exacerbating differences in national interest between the two countries.<sup>36</sup>

**Evaluations of Feasibility.** Finally, there are indications that many Japanese citizens resist the notion of deploying a BMD system unless it can be shown to provide a very high level of protection. U.S. citizens might not apply the same standard for measuring the utility of a BMD system, and hence differences could appear over whether (and when) a particular BMD system should be adopted by Japan.

### Financial Constraints

Cost-related issues currently play a very important role in Japan's consideration of ballistic missile defense. Three aspects are of particular importance: (1) the overall affordability to the Japanese government of a fully deployed BMD system; (2) the potential financial impact that deployment of a BMD system will have on other existing military programs; and (3) the potential impact that deployment of a BMD system will have on the budgets of the individual armed services.

**Overall Costs.** The overall estimated high cost of a fully operational BMD system constitutes a major consideration for the Japanese government. This is especially the case given the intense financial pressures created by Japan's current economic problems—which have resulted in high government debt and recent defense cuts—and the additional burdens on future government finances associated with

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<sup>36</sup>Stimson Report, pp. 70–71.

increasing social welfare costs arising from Japan's aging population.<sup>37</sup>

The funds allocated to date in support of BMD efforts constitute a minor fraction of the overall estimated cost of fielding an entire BMD system. Specifically, only approximately \$30 million has been allocated thus far over a two-year period, as part of a six-year commitment totaling \$200–\$300 million. Moreover, these funds have been obtained through special supplemental budget allocations. In the future, the JDA and the services will likely be required to provide the bulk of the much larger sum of money needed if a decision is made to develop and deploy a BMD system. As indicated above, these agencies have reportedly yet to determine where such funds will come from.

The specific cost involved in developing and deploying a BMD system depends greatly on one's assumptions regarding the overall size of the system required and the extent to which such a system will be fielded independently by Japan. Total cost estimates presented by the Japanese government vary from \$10 billion to \$50 billion, with estimates of up to \$30 billion for research and development alone.<sup>38</sup> The upper range of these estimates equals or exceeds Japan's current total annual defense budget. Moreover, these estimates apparently assume at most a limited BMD system with upper- and lower-tier capabilities designed to intercept a small number of missiles fired from North Korea.<sup>39</sup> However, many observers believe that such a system, and certainly a more robust BMD system, will actually cost considerably more. This is suggested by the fact that the cost of certain key components of a future limited BMD system has probably been underestimated. For example, some observers believe that the estimated cost of an integrated command and control and satellite

<sup>37</sup>As Green and Dalton state (p. 19): "With close to zero growth for most of the 1990s, a rapidly aging society, nearly \$1 trillion in non-performing and underperforming loans, and debt at 130 percent of GDP, Japan's capacity to fund TMD cannot be taken for granted."

<sup>38</sup>Interviews, Tokyo, June 1999.

<sup>39</sup>For example, the above-mentioned internal JDA Report estimated that a very limited system—designed to intercept only a few North Korean missiles—would cost approximately \$20 billion.

surveillance system for ballistic missile defense—currently ranging from \$1.5 billion to \$2 billion—is probably too low.

Moreover, the estimated cost of adding a sufficient number of PAC-3 missiles to each of Japan's existing 24 Patriot fire units and making requisite changes to fire control hardware and software is \$1.7–\$2.3 billion.<sup>40</sup> And some knowledgeable sources estimate that it would cost at least \$11–\$12 billion merely to acquire the eight new AEGIS naval systems and related IRST systems for Japan's E-767 Airborne Warning and Control System (AWACS) aircraft that are deemed necessary to provide full coverage of the Japanese archipelago by a limited NTW system, and to permit rotation of ships for maintenance. This is roughly equivalent to half of the current Japanese five-year defense equipment acquisition budget and does not include the large cost involved in training the nearly 2,500 additional personnel who would be required to operate the AEGIS ships.<sup>41</sup>

Finally, the ultimate total cost of a Japanese BMD system will be greatly affected by the amount and timing of any U.S. involvement in its development and operation. For example, a Japanese-produced, independently operated EW/C3 system would probably prove to be very expensive and perhaps not terribly effective, at least against a potential Chinese missile threat. U.S. participation in the design, development, deployment, and operation of such a system early on (including operational integration with U.S. systems) would likely result in a more cost-effective product.<sup>42</sup>

The previous discussion raises a very critical question: To what extent does Japan have the option to choose between a cooperative BMD system and an independent one? Cost considerations alone argue for some type of collaborative development. In fact, joint development is increasingly the trend for such large-scale high-tech projects as satellites and weapons systems. The degree of integration between the United States and Japan that would be required for the deployment of a BMD system will be contingent to some degree on the type of system ultimately deployed. However, there is nearly

<sup>40</sup>Stimson Report, p. 5.

<sup>41</sup>Vogt, p. 4.

<sup>42</sup>We are indebted to Michael Green for bringing this point to our attention.

unanimous agreement that while Japan would own and operate its own missiles, at least in the initial years, it would have to rely heavily on the United States for early warning and perhaps even command and control. To some expert observers, even those supportive of joint development and deployment, it is this certain initial dependence upon the United States and the resultant questions of national sovereignty that are likely to become the most thorny issues for negotiation between the United States and Japan should Japan decide to procure and deploy a TMD system.<sup>43</sup>

**Effect on Other Programs.** Even if the central government decides to allocate the defense funds necessary to deploy a sufficient and workable BMD system, many knowledgeable observers believe that such an allocation will likely necessitate severe reductions in the funds available to other important defense programs, such as aerial refueling, the acquisition of the new F-2 fighter aircraft and four intelligence satellites, and even the level of host-nation support for the United States. As indicated above, any trade-off between BMD and host-nation support would probably affect U.S.-Japan relations significantly. If the Japanese government decides that it cannot reduce funding for other military programs and does not undertake any special allocations outside the existing defense budget to acquire a BMD system, then Japan will probably not possess the funds needed to begin acquiring a BMD system until 2011 at the earliest, according to several interviewees. The alternative to such a scenario would be to increase annual defense spending levels as a percentage of Japan's gross domestic product (GDP). However, this is a highly unlikely option, given Japan's economic problems, rising social welfare costs, and the likely existence of strong domestic political opposition to such a move, including the opposition of the Ministry of Finance noted above.

**Effect on the Individual Services.** Any decision to allocate funds for the development and deployment of a BMD system could exert a significant impact on the respective budgets of Japan's three major armed services. All three services are concerned that the large costs associated with a BMD system will inevitably reduce funds available for existing programs. The JGSDF is most concerned that it could

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<sup>43</sup>Interview, March 2001.

suffer a significant reduction in funds available for infantry, armor, and artillery modernization, with little apparent gain. Although the JMSDF arguably stands to gain the most from the acquisition of an NTW BMD system, it recognizes the huge additional acquisition, training, and maintenance costs that it would incur to deploy additional AEGIS systems. Because of this likelihood, the JMSDF would want the Japanese government to heavily subsidize the funding required for such acquisitions.

One significant caveat should be made regarding the above observations, however. Some observers believe that these financial considerations, along with the MoF's general resistance to any significant increases in the Japanese budget for BMD, could be overcome if the Japanese government were to formally decide to develop and deploy a full-fledged LT and UT BMD system. Such a decision might occur if, for example: (a) the ballistic missile threat to Japan increases significantly in the future (for example, as a result of further incidents such as North Korea's 1998 missile launch); (b) the United States greatly increases pressure on Japan to adopt a UT BMD system; or (c) the deployment by the United States of a TMD system in Japan generates enormous public pressure on the Japanese government to acquire such a system.<sup>44</sup>

Moreover, even in the absence of a formal decision, the Japanese government might choose to fund significant elements of a future BMD system (e.g., EW, BM/C3I, or LT platforms and interceptors) largely outside the defense budget via supplemental or off-line allocations to existing programs or through indirect—and largely undisclosed—subsidies to key Japanese defense manufacturers. Such financing might resolve or bypass many of the objections of the MoF and the armed services.<sup>45</sup> Hence, although financial issues currently constitute a major concern for the Japanese government, they are probably not insurmountable under certain circumstances.<sup>46</sup>

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<sup>44</sup>Interviews, Tokyo, June 1999.

<sup>45</sup>We are indebted to Richard Samuels of MIT for raising this possibility, which derives from his own earlier research on other defense areas.

<sup>46</sup>Chapter Four contains more on this point.

## Legal Considerations

As indicated above, four legal concerns influence Japanese decisionmaking regarding BMD: (1) constitutional prohibitions against participation in collective self-defense efforts; (2) legislative resolutions prohibiting the military use of outer space; (3) laws against the export of weapons and military-related technologies; and (4) the provisions of the ABM Treaty.

**Constitutional Prohibitions.** Article Nine of Japan's Constitution renounces war and the threat or use of force as a means of settling international disputes. This has been interpreted as a prohibition against the acquisition of offensive weapons; the deployment of armed forces overseas; and Japanese participation in collective self-defense activities, including security relationships with its Asian neighbors. For many Japanese observers, deployment by Tokyo of a BMD system, especially in collaboration with the United States, would violate this prohibition by involving Japan in a form of collective self-defense associated with Washington's global and regional security strategy, and possibly involving offensive weapons. Because of such concerns, Japan is reluctant to deploy a BMD system that could contribute to another country's defense or intrude into the territorial waters or airspace of another state.<sup>47</sup> However, other observers believe that such concerns will ultimately be allayed or bypassed if a combination of U.S. pressure, a rising threat, and the demonstrated feasibility of ballistic missile defense all lead to a consensus on the need to acquire a BMD system. Movement in this direction is already indicated, according to some observers, by legislation under consideration that would allow Japan to undertake pre-emptive strikes against another country when the threat of attack is imminent.<sup>48</sup>

**Legislative Resolutions.** A Diet resolution passed in 1969 called for the peaceful use of space. This resolution has been interpreted by many as prohibiting Japan from using outer space for military purposes, even though the resolution does not have the binding power of a law. A BMD system employing a space-based laser to intercept

<sup>47</sup> CRS Report, p. 18.

<sup>48</sup> Interviews, Tokyo, June 1999.

attacking ballistic missiles would probably constitute a violation of such a prohibition. It is unlikely that Japan will develop and deploy such a weapon, however, given its huge costs, unproven feasibility, and obvious military use. A less clear case would be presented by a BMD system with a space-based early warning capability; observers differ over whether or not such a system would violate the above prohibition. In any event, many observers believe that those land- and sea-based BMD systems most likely to be acquired by Japan would not include a Japanese-deployed space-based early warning capability. Instead, Japan would likely rely on a proposed U.S. space-based infrared system (SBIRS). Moreover, Japan's preference for NTW over THAAD is partly based on its policy against the military use of space, and the mistaken belief that the latter system would employ space-based sensors while the former would not.<sup>49</sup>

Politicians have long relied on public reinterpretations of Diet resolutions as a way to square current imperatives with past commitments. This is the likely reason for a statement by the cabinet spokesman in December 1998 that a NTW BMD system would not violate the Diet resolution.<sup>50</sup> In any event, as with the above-mentioned constitutional prohibition, many observers believe that Japan's existing prohibition against the military use of space will be overcome if a clear consensus emerges behind the acquisition of a BMD system. The ease with which the acquisition of a dual-use reconnaissance satellite was approved by the Diet following the North Korean missile launch is viewed by some knowledgeable observers as evidence that the prohibition on the military use of space can be easily redefined if necessary.<sup>51</sup>

**Laws.** Japan's Three Principles on Arms Exports and related Guidelines prohibit the export or third-country transfer of Japanese-made weapons or components, unless explicit exceptions are granted by the Japanese cabinet and approved by the Diet. They especially

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<sup>49</sup>CRS Report, p. 18.

<sup>50</sup>Moreover, according to Japanese interviewees, a crisis management team led by LDP Diet member Fukushiro Nukaga recently issued a report calling for a revision in the 1969 Diet Resolution on Peaceful Use of Space in order to permit the introduction of ballistic missile defense. The report argued that early introduction of BMD is necessary and useful as a means of suppressing missile proliferation.

<sup>51</sup>Interview, March 2001.

prohibit arms exports to communist states, to states under UN embargo, and to states involved in or likely to become involved in conflict. At present, exceptions have been granted for the export of some types of military technology to the United States. However, this reportedly does not include coproduction for military use.<sup>52</sup> The current agreement with Washington to conduct research and manufacture prototypes for four components for the proposed NTW missile does not involve exports or transfers outside Japan. However, a decision to expand the level of research, to convey the results of such research to the United States, or to embark on genuinely collaborative development of BMD systems could each violate the Three Principles. Yet many observers believe that exceptions will likely be granted if Japanese involvement expands to such levels.

**ABM Treaty Provisions.** Although not a participant in the ABM Treaty process, Japan is a strong proponent of the general arms control objectives that underlie the treaty. Hence, the Japanese government would not wish to be seen as a participant in an arrangement that threatens such objectives.<sup>53</sup> On the other hand, many observers of the ABM process in the JDA are concerned that the failure to reach agreement between Washington and Moscow on a modification of the ABM Treaty could prevent the development or utilization by Japan of the advanced elements of a more robust and efficient BMD system (e.g., elements such as SBIRS-Low or systems capable of intercepting missiles flying at speeds equivalent to ICBMs).<sup>54</sup> However, some Japanese observers believe that the ABM Treaty ultimately will not pose a major obstacle to a Japanese decision on BMD since it is likely that the United States will either reach agreement with Russia on revision of the ABM Treaty or opt out of the treaty entirely. Either outcome would likely serve to remove most of the obstacles presented by the treaty in Japan.

The above overview suggests that legal considerations do not constitute a major obstacle to Japan's adoption of a BMD system, despite

<sup>52</sup>CRS Report, p. 18.

<sup>53</sup>Cronin et al., p. 178.

<sup>54</sup>Cambone, p. 78. Upper-tier TMD systems such as the NTW system might violate the ABM Treaty, whereas lower-tier systems such as PAC-3 might be permissible. See Urayama, p. 599, footnote 1.

the fact that such concerns are often stressed by both Japanese and foreign observers.

### **Technical/Military Feasibility and Architecture Issues**

The technical feasibility of BMD systems and the type of BMD architecture required to adequately meet the conceivable ballistic missiles threats confronting Japan remain a subject of considerable debate. Many Japanese observers are highly skeptical about the basic concept of ballistic missile defense; in particular, some doubt that those types of systems and architectures under consideration by Tokyo could provide an adequate defense against the full range of threats confronting Japan.

Japan is currently either deploying or considering only those types of BMD systems that can be classified as TMD systems, as opposed to the potentially more sophisticated NMD systems under development in the United States. TMD systems are primarily designed to counter conventionally armed ballistic missiles with ranges below 3,500 kilometers and reentry speeds below 5 kilometers per second (i.e., most categories of standard MRBMs). Thus, it would be extremely difficult—if not impossible—for missiles in the TMD systems most likely to be deployed by Japan, even if they performed within their design parameters, to intercept the several types of 3,500 km+ longer-range missiles possessed by China and Russia.<sup>55</sup> This is especially the case if such missiles employ countermeasures such as penetration aids or decoys, or are modified to follow either flat or arched trajectories. Such modifications and countermeasures would also make shorter-range ballistic missiles (i.e., those below 3,500 km) much more difficult to intercept.

Existing studies—such as the above-mentioned 1999 DoD report to Congress on U.S. TMD systems that could protect Japan, South Ko-

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<sup>55</sup>According to some specialists, certain types of TMD systems, such as the NTW system, might prove effective against longer-range, faster ballistic missiles, if they were to employ highly sophisticated, air- or space-based EW and cueing sensors or some elements of the proposed U.S. NMD system, such as the Airborne Laser. But this argument is by no means accepted by all experts. Some critics believe that both THAAD and NTW systems would likely prove unable to intercept even the Taepodong-1, because that missile might reach reentry speeds as high as 7–8 kilometers/second.

rea, and Taiwan, as well as the above-summarized internal JDA report—do not provide anything approaching a comprehensive assessment of the challenges involved in the deployment of a BMD system by Japan. For example, the DoD study provides only an illustrative estimate of the minimum type and number of lower- and upper-tier TMD systems theoretically required to provide coverage of the main Japanese islands against a small number (less than five) of less sophisticated North Korean BMDs, in particular the Nodong and the Taepodong-1. The study does not consider defense against more advanced Chinese or Russian ballistic missiles. It also does not assess what would be required to protect against the kinds of countermeasures mentioned above or a saturation attack by large numbers of missiles. Hence, the study should not be taken as a basis for assessing the adequacy or feasibility of all possible BMD systems for Japan.<sup>56</sup>

At the very least, given the higher numbers, wider possible geographical launch area, and faster speeds of Chinese and Russian ballistic missiles, Japan would need to acquire and deploy a significantly higher number of NTW ships or land-based firing units and radars than the DoD study proposes in order to handle the potential threat posed by such missiles. However, even if much larger numbers of firing units were deployed, many observers believe this would by no means guarantee a high level of protection against Chinese and Russian IRBMs, given the basic limitations of such TMD systems and the ability of China and Russia to deploy the types of countermeasures indicated above. And an exclusive Japanese reliance on lower-tier PAC-3 systems would prove especially risky, since such systems are designed to intercept only ballistic missiles with ranges below 1,500 kilometers.

Finally, a major variable affecting the ability of any particular BMD technology or architecture to defend Japan is the type of C3 sensors and systems deployed. Many knowledgeable observers deem Japan's current air and naval C3 systems (centered on BADGE and AEGIS) inadequate to support a full-fledged BMD system.<sup>57</sup> The Patriot and NTW systems could possibly establish a wide-area defense against

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<sup>56</sup>CRS Report.

<sup>57</sup>For examples, see Vogt and Matsumura.

attack by strategic missiles if coupled with space-based infrared sensors now under development and a more integrated C3 system.<sup>58</sup> Yet as indicated above, the creation of a more capable EW/C3 system will likely constitute a major challenge, both technically and to the U.S.-Japan relationship. It remains unclear what type of EW/C3 system would best maximize the capabilities of a particular BMD architecture and how such a system might be created, either with or without close U.S. collaboration. These issues have yet to be thoroughly examined by Japanese and U.S. officials, according to interviewees.

### **Industrial and Commercial Considerations**

Japanese participation in BMD would provide enormous potential benefits to Japan's defense industry and technology base in three basic ways: first, by generally strengthening Japan's ailing defense industry sector; second, by improving the R&D and technology acquisition capabilities of specific corporations; and third, by providing possible spin-off benefits to the commercial sector.<sup>59</sup> These possibilities create a potential convergence of interests between JDA industrial offices, the divisions of certain defense contractors, and METI.<sup>60</sup> However, according to knowledgeable Japanese observers, unlike the case with the joint U.S.-Japan development of the FSX (F-2) fighter and the effort to build Japanese surveillance satellites, no strong coalition of pro-BMD "techno-nationalists" exists within the Japanese government at present. Overall, BMD is simply not viewed as an area that will generate major benefits in technology development for both military- and non-military-related industry and commerce.<sup>61</sup>

Moreover, most interested Japanese corporations remain very cautious toward BMD, primarily because of the feasibility problem and the existence of a range of unresolved concerns. The latter include the following:

<sup>58</sup>O'Hanlon, pp. 183-184.

<sup>59</sup>Stimson Report, p. 67.

<sup>60</sup>Stimson Report, p. 67.

<sup>61</sup>Interviews, Tokyo, June 1999.

**Excessive Up-Front Costs.** Huge initial investments in research and development would likely be required for those sectors involved in creating new materials and technologies for a BMD system. Such investments would in many cases exceed the capacities of private corporations and thus would require significant public funding. However, according to knowledgeable Japanese business experts, no such government funding will be provided as long as Tokyo limits Japan's participation in the BMD program to the current small research endeavor. In other words, essential public support will not be provided to the private sector in the absence of a formal government decision to participate in joint development and deployment. Without such support, Japanese companies will reportedly remain reluctant to undertake significant levels of research and technology development. Moreover, although a significant level of technology spin-off to the commercial sector would arguably lower the costs involved in BMD investments, such spin-off effects would likely require the development of higher levels of technology, extensive involvement of the private sector, and hence higher risks. This fact reinforces the existing cautious attitude reportedly held by many corporations.

**Legal Barriers.** As indicated in the previous section, more extensive collaboration with the United States would likely lead to the export of BMD-related components or the transfer of BMD systems or subsystems to which Japan has made significant contributions. Such activities would likely violate existing regulations against the export of military-related equipment. Japanese industry supports the relaxation of such regulations, but such an action is strongly opposed by the political left in Japan.<sup>62</sup> Presently, Japanese companies cannot develop subcomponents for U.S. weapons systems or conduct joint development projects. On balance, however, existing legal considerations are reportedly not considered a major barrier to commercial involvement in BMD development.

**Net Technology Drain.** Many Japanese observers believe that the United States enjoys a major lead over Japan in most BMD-related technologies and would likely dominate any genuinely collaborative research and development effort. As a result, they fear that the

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<sup>62</sup>Cronin et al., p. 178.

United States will limit or prevent the transfer of those technologies of greatest interest to Japan and generally relegate Japan to licensed production or off-the-shelf agreements.<sup>63</sup> METI is reportedly also concerned about the flow back of advanced technology from Japan to the United States and does not want the United States to exert strong controls over BMD technology development through a reliance on licensing.

**Loss of Funding for Existing Defense Work.** Given current severe limitations on aggregate defense spending, those Japanese companies or divisions currently engaged in non-BMD-related defense work fear that a BMD program would siphon off essential funds. This concern has produced a situation in which some major corporations are internally divided over the pros and cons of BMD development, and many corporate heads fear being placed in a situation where they are forced to choose between existing profitable defense-related ventures and potentially rewarding yet unrealized BMD-related ventures. This issue is reportedly of great concern to many potential industry participants.

Despite such fundamental concerns and resulting caution on the part of Japanese industry, one should not automatically assume that corporate efforts to develop indigenous technologies—or even largely indigenous systems—could not emerge in the future. Some Japanese companies might already be prepared to move forward quickly in certain areas if the government decides to move from research to development. In general, those industrial sectors that stand to benefit most from BMD development include shipbuilding; electronics producers in the areas of telecommunications, sensors, and radars; satellite producers; and communications software developers.<sup>64</sup> However, the above concerns at the very least suggest that, on balance, Japanese industry is not pushing hard for the development of a Japanese BMD system.

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<sup>63</sup>Cronin et al., p. 178.

<sup>64</sup>These areas are largely related to NTW systems technologies, not THAAD or PAC systems. On balance, there is little commercial interest in PAC-3 or THAAD, according to many interviewees.

## The China Factor

Chinese observers have stated, publicly or privately, several reasons for China's opposition to the deployment of a BMD system by Japan:<sup>65</sup>

- BMD, in the form of a Japanese-controlled mobile NTW system, will provide Japan with the ability to protect Taiwan against Chinese ballistic missiles in a possible future military conflict, thereby reinforcing U.S. military intervention, facilitating Japan's independent efforts to establish predominant influence over Taiwan, and more generally furthering Japan's military and political power in the Asia Pacific.
- BMD will encourage Japan to acquire offensive weapons systems (including possibly WMD capabilities) and in general fuel Japanese remilitarization by both stimulating the development of an offensive missile capability and providing a shield against China's nuclear deterrent. This might encourage Japan to develop the "sword" of nuclear weapons.
- BMD will reduce China's ability to exert psychological leverage on Japan in a crisis by providing a plausible defense against the threat of a limited ballistic missile attack or other possible coercive threats contemplated by China.
- BMD will increase Asian fears of Japanese remilitarization and thereby stimulate a general arms race in the region, thus destabilizing Asia and diverting countries, including China, from concentrating on peaceful, cooperative economic development.
- BMD, in tandem with the strengthening of the United States-Japan security guidelines, will greatly deepen Japan's integration into a U.S.-based regional military C3I structure, encourage Japan's overall dependence upon the U.S. military system, and thereby facilitate the emergence of a joint U.S.-Japan-led "mini-NATO" in Asia intended to contain China.

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<sup>65</sup>The following points are drawn from private discussions with Chinese observers and a variety of secondary sources, including Orayama, Christensen, Gu Guoliang, Hong Yuan, Ogawa, the Stimson Report, and O'Donogue. We are also indebted to Iain Johnston and Mike McDevitt for providing their views on this issue in private correspondence.

- BMD could force China to greatly increase the size and sophistication of its IRBM missile arsenal, to deploy MIRVed or MARVed warheads<sup>66</sup> and various countermeasures, to accelerate its cruise missile and anti-satellite programs, and to adopt a more robust nuclear deterrence doctrine oriented toward WMD warfighting. Such an outcome would become even more likely if Japan were integrated into an East Asian BMD system that included Taiwan, South Korea, and the United States.
- BMD would undermine regional and global arms control efforts by weakening the ABM Treaty,<sup>67</sup> retarding further nuclear arms control initiatives, reversing the process of reducing the number of MIRVed warheads in nuclear stockpiles, and generally weakening China's support for the Comprehensive Test Ban Treaty, the Missile Technology Control Regime (MTCR), and the Fissile Material Cutoff Treaty (FMCT) negotiations. Also, the transfer of missile-related technologies between Tokyo and Washington would violate the MTCR, thus constituting a double standard in U.S. policy.

Significant controversy exists within Japan over how much consideration should be given to these Chinese objections and to the overall ballistic missile threat posed by China, and over the preferred Japanese response to such factors. Japan's political community in particular is highly divided over the nature and significance of the China factor in Japanese policy toward BMD. Even the mainstream LDP is reportedly divided between those who emphasize the need to avoid antagonizing China by developing and deploying a BMD sys-

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<sup>66</sup>MIRV is an acronym for "multiple, independently targeted reentry vehicle," and MARV is an acronym for "maneuverable reentry vehicle." Both capabilities could reduce the effectiveness of a BMD system and increase significantly the dangers posed by China's nuclear arsenal.

<sup>67</sup>As Urayama points out (p. 606), the Chinese have three basic concerns about Japan and TMD systems that relate to the ABM Treaty. "First, there is the fear that the U.S. will develop NMD technology in the name of TMD; a Japanese TMD system would therefore be regarded as being at the 'forefront' of the U.S. NMD. Second, any transfer of ABM technology to other countries (e.g., from the U.S. to Japan) would violate the treaty. Finally, abrogating the treaty could spur Russia to develop countermeasures, which in turn could offset regional stability by causing a regional arms race in which China would be compelled to participate."

tem and those who generally support BMD for alliance maintenance reasons and to reduce potential Chinese leverage in a crisis.<sup>68</sup>

On the whole, most ordinary Japanese citizens are more concerned about the ballistic missile threat posed by North Korea and are largely unaware of or unconcerned about the potential Chinese ballistic missile threat or adverse Chinese reactions to any BMD deployment by Japan. However, within the Japanese security community, both inside and outside the government, many observers cite China's missile threat as the major factor compelling Japan to acquire a robust BMD system. These observers point to the need for Japan to remain free from potential Chinese coercion, particularly in the context of a future Taiwan crisis. Only by acquiring a BMD system capable of intercepting a significant portion of Chinese ballistic missiles, they argue, will the Japanese government and populace have the confidence to support the United States in such a crisis and thereby maintain the strength and vitality of the U.S.-Japan alliance. Without such a system, these observers fear that a serious confrontation with China could ultimately result in a break in the U.S.-Japan relationship or, perhaps worse yet, in strong public demands for the acquisition by Japan of WMD capabilities.

In contrast, other observers, including politicians and some officials, argue that Japan should avoid acquiring a BMD system capable of intercepting Chinese missiles, in order to maintain good relations with Beijing and increase the overall independence and flexibility of Japanese foreign policy. These observers believe that Japanese involvement in a U.S. BMD system could drag Japan into an unnecessary and unwanted confrontation with Beijing.<sup>69</sup> Instead, they advocate arms control and confidence-building measures with China and overall efforts to strengthen Sino-Japanese relations—both to avoid future regional instability and conflict and as a hedge against potentially adverse shifts in U.S. policy such as an unforeseen major improvement in Sino-United States relations. Thus, these observers view improved relations with China as part of an overall Japanese

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<sup>68</sup>Interviews, Tokyo, June 1999.

<sup>69</sup>This could supposedly occur as a result of a regional confrontation over Taiwan involving a joint U.S.-Japan TMD system or more indirectly because of Chinese concerns over Washington's utilization of a Japan-based NTW system to support the U.S. NMD system. For the latter point, see Green and Dalton, p. 18.

effort to exercise more independence and leverage in the foreign policy arena—especially in relations with China—while retaining positive ties to Washington. A robust BMD system is viewed as an obstacle to this objective.

A third group, presumably including strategists, officials, and politicians, assesses the value of a Japanese BMD system vis-à-vis China primarily from a narrower political perspective. These people argue that the potential deployment of such a system should be used by the Japanese government as a “card” against Beijing to increase Tokyo’s political leverage in the security realm and possibly to be traded away in return for concrete Chinese concessions on important security issues such as Korea, Taiwan, and Chinese missile deployments. Proponents of this viewpoint thus apparently believe that a deployed Japanese BMD system is not absolutely essential to Japanese security.<sup>70</sup>

Very few, if any, detailed discussions among advocates of these opposing viewpoints toward China have thus far taken place, either inside or outside the Japanese government. This is in part because of the extreme sensitivity that exists in both government and society toward discussion of China as a potential adversary. Overall, therefore, the China factor has not played a decisive role in Japanese decisions concerning BMD. Other factors such as alliance maintenance, cost and feasibility issues, and the general absence of a Japanese consensus on BMD have played a far more important role to date. But many observers believe that China considerations will probably exert a far greater influence over Japanese calculations if Tokyo begins to seriously contemplate the development and deployment of a relatively sophisticated, upper-tier BMD system. Some observers believe that disputes over the effect of such a decision on Chinese policy and behavior could become the core issue in the BMD debate in Japan at that time, and could ultimately produce sharp divisions within the LDP—even perhaps, in the words of one observer, “a revision of the political landscape in Japan.”<sup>71</sup> There is certainly no question that fear of a confrontation with China over de-

<sup>70</sup>We are indebted to Michael Green for bringing to our attention the existence of this third viewpoint concerning China, based on his own interviews in Japan.

<sup>71</sup>Interview, Tokyo, June 1999.

fense-related issues such as BMD could have a major effect on internal Japanese decisionmaking.<sup>72</sup>

The ultimate significance of this factor will likely depend very much on the specific context confronting Japan's decisionmakers in the future—especially the level and type of pressure exerted by the United States and the presence or absence of further external catalysts, such as increased tensions over Korea or Taiwan or perceived Chinese threats to Japan.

Japanese concerns about China's reactions are not confined to its own potential deployment of BMD. Decisionmakers and other experts in Tokyo are also concerned about Beijing's response to efforts by the United States to develop and deploy an NMD system. A deterioration of U.S.-China relations, coupled with an expansion of China's nuclear and ballistic missile arsenal, would create serious concern in Tokyo. A number of prominent former Japanese officials have called for the establishment of dialogues on BMD that would include China. They believe that involving China in open and transparent discussions of these systems could mitigate the possible destabilizing effects of U.S. development and deployment of NMD as well as Japanese participation in a ballistic missile defense system.<sup>73</sup>

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<sup>72</sup>Cronin et al., p. 178. On the other hand, some observers believe that "... Beijing's criticism of BMD is having declining saliency in Tokyo's debate about the system. Indeed, China's assertion that it must retain the capability for nuclear blackmail has led to a broad recognition in Japan that Chinese missiles are aimed at it." Green and Dalton, p. 19.

<sup>73</sup>Former Foreign Ministry official Satoshi Morimoto and Ambassador Nagao Hyodo are among those who have gone on record with such proposals.

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## **Chapter Four**

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### **CONCLUSIONS AND IMPLICATIONS FOR THE U.S.-JAPAN ALLIANCE**

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No consensus has thus far emerged in favor of the development or deployment of a full-fledged BMD system in Japan (taken to include both upper- and lower-tier components and an integrated BM/C3 infrastructure). This lack of consensus reflects a variety of factors: BMD's unproven feasibility; its potentially huge cost; the significant strategic implications; the apparently limited technology gains; the absence of a clear and persistent public recognition of a missile threat to Japan and of any informed and detailed public or even elite discussion on BMD issues; and the lack of strong support from any senior Japanese leader or politician. Overall, the pace, tempo, and level of support for BMD so far have been heavily influenced by the Japanese government's bureaucratic and budgetary processes, U.S. pressure, and actions taken by North Korea.

Japan's level of involvement in BMD is presently limited to the creation of national and bilateral study and oversight groups to examine and guide the issue in the Japanese bureaucracy; the production of largely technical studies; decisions to acquire lower-tier BMD-related systems; and a limited agreement with the United States to conduct research and manufacture prototypes relating to the NTW missile. To the authors' knowledge, the Japanese government has undertaken few, if any, thorough assessments of the most critical political and strategic dimensions of a Japanese ballistic missile defense system, such as its effect on the U.S.-Japan alliance and the U.S. forward presence in the Asia-Pacific region, and the possible responses of China and Russia.

Moreover, the government of Japan is apparently attempting to limit the number of actors involved in decisionmaking regarding BMD. Thus far, the policy process has remained largely under the control of the prime minister and his cabinet, the Ministry of Foreign Affairs, the Japanese Defense Agency, and, to a lesser extent (given the relatively small sums of money spent thus far on the program), the Ministry of Finance. The Japanese government has also successfully stifled debate on key substantive issues, such as how this system would relate to Japan's long-term strategic objectives, by arguing that it is precipitous to debate any issues related to development or deployment as long as the technology remains unproven.

Absent major external precipitants or shifts (such as a crisis involving North Korea or China, or a major increase in U.S. pressure), the emergence of a strong, decisive leadership (along with a significant improvement in Japan's economic situation), or the development and availability of a workable TMD system, Japan is likely to continue its existing minimalist, incremental approach to BMD research and funding for several years and postpone entering the development and deployment phases. The specific pace, scope, and content of such limited research efforts will largely depend on commercial and technology transfer considerations, and the level of government funding available, as well as perceptions of the success or failure of current efforts to improve relations with North Korea.

Recent warming trends on the Korean peninsula have arguably produced a drop in Japanese enthusiasm for BMD, although certain military strategists continue to push BMD as a counterbalance to growing Chinese missile deployments. The latter view is not yet the prevailing one in government circles, however. Therefore, the perception of a less belligerent, more cooperative North Korea will make Japanese decisionmaking on BMD more difficult as any decision must be based upon a real and credible threat. The total disappearance of a North Korean threat could undermine the motivation for acquiring even a minimal BMD capability. Moreover, without a basic government decision to proceed beyond the research stage and the promise of large government contracts for the development and procurement that such a decision would bring, Japanese commercial and technological interests will have few incentives to greatly accelerate or deepen the research program.

Many observers believe that the decision on whether or not to move forward on BMD will ultimately be a political one. This means that the decision will be heavily dependent upon whether or not the prime minister is willing to take the political risk and exercise the leadership this issue will require. The configuration of the governing coalition at the time will also be a factor.

Currently, the LDP is the majority party in a three-way coalition in which the Buddhist-linked Komeito controls the swing vote. The Komeito states in its basic policy that collective defense falls outside the permissible limits on defense imposed by the Japanese Constitution. Hence, it is likely to oppose BMD should it require co-ordination with countries beyond the United States. In addition, Komeito members pride themselves on their historic role in reducing tension between Japan and other countries in Asia—particularly China. One can predict that they will advocate restraint should BMD appear likely to substantially contribute to the deterioration of Japan's relations with one of her nearest and most powerful neighbors. Their support for updating and improving Japan's intelligence capabilities—including acquisition of a surveillance satellite—as well as their preference for a less deferential, more independent policy toward the United States, albeit within the framework of the alliance, provides some room for maneuver and compromise. It is conceivable that they could support a decision to expand Japan's participation in BMD under certain conditions. For instance, they could accept the purchase of pieces of a BMD system but dramatically reduce its effectiveness by preventing the development of a well-integrated C3I system.

Should the Democratic Party join the ruling coalition, it would likely support similar policies. Its current foreign policy stance represents an attempt to find common ground for its two disparate factions. Thus, it calls for Japan to improve its comprehensive diplomatic as well as defense capability; to work toward the establishment of more autonomous security policies while recognizing the importance of the U.S.-Japan relationship in the area of security; and to promote active debate on the Constitution while retaining its emphasis on pacifism. More specifically, the DP asserts that China is a major

power in the region “on a par with the United States,”<sup>1</sup> and therefore they advocate working to strengthen partnerships between the United States and China and Japan and China. One of their proposals for dealing with the missile threat from North Korea is the creation of a Northeast Asian security framework centered around Japan, the United States, China, South Korea, North Korea and Russia.

Regardless of its composition, in the near term the fragility of any ruling coalition will increase the need for compromise in order to make difficult decisions. Such a compromise in the case of BMD could include demands for Japan’s control of the decision to launch, sharing of technology to enable Japan to acquire its own early warning capability, and including China and possibly Japan’s other Asian neighbors in dialogues related to BMD.

Japan’s political structure is in a period of transition. Over the course of the next five to ten years—the period in which Japan will confront most of the major decisions regarding the future direction of its BMD program—it is possible to imagine a number of different political configurations, including a splintering of the LDP brought on by a crushing electoral defeat, the rise of a DP-led government, or a shift in coalition partners. As argued above, who exerts leadership will matter particularly with regard to the pace and scope of Japan’s participation. However, party affiliation or labels may not.

The breakdown of the strong ideological biases that separated Japan’s political spectrum into those who were supportive of the U.S.-Japan security alliance and those who opposed it has created room for a new consensus to begin to emerge. One of the key precepts of this emerging consensus is a general acceptance of the need for a continued U.S.-Japan Security Alliance. But there is an equally strong desire for more autonomy within this alliance brought on by a recognition that Japan’s strategic interests do not always coincide with those of the United States. In particular, Japan for a variety of reasons related to history and geography perceives an arguably greater need than does the United States to maintain a non-confrontational relationship with China.

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<sup>1</sup>The Democratic Party of Japan Basic Policies, <http://www.dpj.or.jp/english>, downloaded March 20, 2001.

## POSSIBLE TIMETABLE

According to knowledgeable observers, a formal decision to move into the development and deployment stages could occur within the next four to five years,<sup>2</sup> in response to the likely introduction by the JASDF of an advanced C3 system for air defense, missile defense, or both. In other words, milestones anticipated by BMD-related C3 infrastructure improvements could force a basic decision on overall BMD architecture during this time frame.<sup>3</sup> Any formal decision over whether or not to enter the BMD development phase will likely involve a debate over many of the issues mentioned above, including the appropriate level of Japanese dependence upon the United States for its security; the weaponization of space; cost and feasibility concerns; and legal or procedural issues relating to collective defense, the Constitution, and Diet resolutions. Among these issues, the question of the creation of a U.S.-Japan joint C3 system and the level of Japanese versus U.S. control over long-range surveillance and cueing capabilities will arguably pose especially significant challenges, given the relationship of these factors to core issues such as alliance maintenance and service rivalries.

Although legal or procedural considerations will probably play a prominent role in any likely public debate over BMD, such factors will almost certainly not exert any substantive influence over the final decision, especially if the political and bureaucratic pressures in favor of BMD are strong. If the political and bureaucratic pressures are weak or divided, however, perceived legal and procedural considerations could substantially constrain the contours of Japan's participation. Lack of political will could also allow the Ministry of Finance to exert its budgetary authority, severely limiting the funds available for both development and deployment.

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<sup>2</sup>Green and Dalton state (p. 15), "A decision on NTW procurement and deployment is expected to take place by 2005." However, they do not explain the reason for this assessment.

<sup>3</sup>It is also possible that the JASDF might decide to upgrade its C3 infrastructure without making a clear, explicit statement on the development phase of the BMD effort. But it will be difficult for the Japanese government to avoid such a statement entirely, since this decision is linked to some extent with developments on TMD in the United States.

At the same time, it is also possible that various components of a BMD architecture, such as the PAC-3 system, additional AEGIS ships, and certain C3 and radar tracking infrastructure elements, might be acquired by Japan's self-defense forces as necessary and planned "upgrades" of existing systems without any prior debate or decision on ballistic missile defense per se—particularly if they are seen as useful for non-BMD missions. In other words, while avoiding an explicit, formal decision to develop and deploy a BMD system, Japan could gradually acquire many of the elements of such a system.<sup>4</sup> Moreover, financial considerations will probably not obstruct such selective acquisitions, given the likely ability of the Japanese government to imbed such relatively limited costs in existing program budgets or to utilize off-line or special allocations.

Assuming the systems are proven operable and effective on some level, however, a basic decision on the construction of a more complete and integrated BMD architecture will almost certainly need to be made at some point, given the highly sophisticated technologies involved, the significant sums required for the development and deployment of such a system, the significant limitations of lower-tier BMD systems such as PAC-3, and the likely pressures created by a future U.S. deployment of TMD systems in Japan.

A full-fledged LT and UT BMD architecture for Japan will probably consist of a mix of PAC-3 lower-tier and NTW upper-tier systems, supported by a more integrated and extensive Japanese EW and BM/C3 infrastructure. Land scarcity and bureaucratic restrictions virtually preclude the acquisition by Japan of THAAD, according to many Japanese interviewees. Moreover, although the U.S. Navy will exert strong pressure on Japan to acquire a NAD system, its limited intercept range and high cost will likely preclude Japanese acceptance. As indicated above, it is likely that many of the elements of a Japanese BMD system will be built on existing foundations in the Patriot, the AEGIS JMSDF ships, and the ongoing improvement of the JASDF C3 and individual radar tracking systems of the JSDF. At the same time, most experts believe that any BMD system developed by Japan will have a very limited utility—especially against Chinese or

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<sup>4</sup>For example, many Japanese observers believe that the JASDF will eventually acquire PAC-3 regardless of whether or not a larger policy decision on BMD is made.

Russian missiles—without the addition of an integrated U.S.-Japan EW/C3 system. Moreover, the longer Japan waits to initiate discussions with the United States on developing and deploying such an integrated system, the more expensive the final product will likely be.

Japan will probably need to make a basic decision on the deployment of a combined LT and UT BMD architecture by 2007–2010 at the latest, in response to the likely emergence and deployment by that time of a workable, largely U.S.-produced NTW system. If the United States deploys such a system with U.S. military forces in Japan, the pressure for Japan to adopt a nationwide BMD system will almost certainly become enormous, particularly if there is a recognizable threat. This is because the Japanese citizenry would likely not accept a situation in which some segments of the Japanese population living in areas close to U.S. bases would be protected, while others would not.

Absent such a threat, however, the deployment of even defensive missile systems by the United States may be seen as provocative and hence likely to increase rather than reduce the local population's vulnerability to attack, thus creating pressure for Japan to resist U.S. efforts to deploy these systems at all. Given the lengthy list of military acquisitions already in the pipeline, the restricted size of Japan's defense budget, and the long period of time required to procure, deploy, and operationalize an integrated BMD architecture, Japan is unlikely to field a full-blown BMD system before 2015, even if a decision to deploy is made by the end of the decade.<sup>5</sup> Hence, absent major external precipitating factors or a rapid (and unexpected) acceleration in the pace of BMD development, the United States should not expect Japan to move quickly to acquire and deploy an integrated LT and UT BMD system.

The development or deployment of a BMD system with the United States will likely exert a major influence on the tenor of the U.S.-Japan alliance. As other analysts have observed,<sup>6</sup> the mishandling of the BMD issue by the United States could damage the alliance and

<sup>5</sup>Some knowledgeable Japanese observers believe that a complete BMD system might not be fielded by Japan for as long as 20–25 years, especially if additional delays are encountered in the U.S. development of both PAC-3 and NTW systems.

<sup>6</sup>For example, see Stimson Report, p. 73.

U.S. security interests far more than any military benefits obtained from BMD. Yet the potential for mishandling is arguably rather high, in large part because significant suspicions or uncertainties exist between Tokyo and Washington over each other's perceptions, motives, and level of commitment to the notion of joint ballistic missile defense, and because the two sides have thus far failed to conduct a detailed and sustained dialogue over these and other critical issues.<sup>7</sup> Both governments should commence such a dialogue as soon as possible.

In order to undertake such a dialogue, however, each side must first separately clarify its own position on ballistic missile defense for Japan. This will likely require a more systematic examination of the many complex strategic, technical, commercial, political, alliance-related, and force interoperability-related issues involved in U.S.-Japan BMD development and deployment than has occurred to date. The details of such factors obviously cannot be clarified in every instance in advance of a dialogue, but basic interests, principles, and priorities arguably can.

## **CRITICAL ISSUES**

In the overall process of preparation and subsequent dialogue, Japan will most likely face more obstacles than the United States given the highly contingent nature of the BMD issue within the Japanese polity and society, and the absence of major external precipitating factors. An important near-term issue for the U.S. side should be to clarify how essential it is for Japan to participate in a more extensive program of joint research and development. As the above analysis suggests, Japan has few domestic incentives at present to expand its involvement significantly in that effort. Washington must weigh the relative financial and other benefits of an expanded joint R&D effort against the potential long-term costs of pressing Japan on this issue. The primary objective for the United States should presumably be to

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<sup>7</sup>As indicated above, the joint U.S.-Japan TMD Working Group does not engage in such discussions. Other bilateral interactions on BMD issues are usually either at too high a level (i.e., between heads of state or defense chiefs) or too narrow in focus (i.e., between functional specialists interested in narrow technical issues) to be productive in this regard.

ensure that Japan's ultimate posture regarding BMD is fully compatible with the larger political and strategic interests and objectives of the United States and of the alliance.

A second critical issue of importance for both Washington and Tokyo is that of interoperability, especially concerning early warning and BM/C3 systems. This is a highly complex factor, involving not just technical problems but also problems of political and military coordination and control between the two countries. Both sides need to devote sustained attention to these issues, both before and during a dialogue.

A third issue of importance concerns the larger political and strategic implications of various types and sizes of BMD systems acquired by Japan. In particular, the impact of likely Chinese reactions to such systems upon Washington's and Tokyo's bilateral relations with Beijing, the U.S.-Japan alliance, and the larger Asian security environment should be examined and discussed in significant detail by both Japan and the United States, both separately and via dialogue.

The perception that U.S. NMD and TMD are integrated parts of the same system, and that this system is partly designed to counter Chinese missiles, could cause Tokyo problems with China—as well as igniting a domestic debate in Japan over the constitutional limits on defense outside its own borders. Insufficient attention has been given to these issues by both countries. Although dialogue alone will not eliminate the frictions that will no doubt emerge as the United States and Japan work out the contours of their collaboration on BMD, it is certain that without it the road ahead for the U.S.-Japan alliance will be bumpy indeed.

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Spurred by a perceived growing ballistic missile threat from within the Asia-Pacific region and requests from the United States to support research and development on components of a missile defense system, the Japanese government made a series of initial decisions in late 1998 and early 1999 to move forward with joint research and development with the United States on ballistic missile defense (BMD).

This book explores both the benefits and potential problems of deploying a BMD system in Japan. It examines the main policies and actions undertaken thus far by Japan in the area of BMD, discusses several future milestones and likely next steps, and identifies the major Japanese individuals and organizations influencing future decisions on BMD. It also assesses how such issues as alliance maintenance, cost, feasibility, commercial incentives, and Chinese behavior are addressed by key Japanese players.

The book concludes that Japan could gradually acquire many of the elements of a BMD system while avoiding an explicit, formal deployment decision. But the development or deployment of a complete BMD system with the United States will likely pose many challenges to the U.S.-Japan alliance.

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